



US Army Corps
of Engineers ®

Levee Inspection Report

Name of System: Bennington Flood Control Project

Name of Segment: Bennington, Roaring Branch Left Bank

NLD System ID: 4505000006

NLD Segment ID: 4504000006

Segment Type: USACE Federally constructed, turned over to public sponsor operations and maintenance

Levee Sponsor (Name and Organization): Village of Bennington

Inspection Report Prepared by: Scott, C. Michalak

Date(s) of Inspection: 06/06/2022 - 06/07/2022

Other Segments Within This System

| Segment Name | NLD Segment ID# | Segment Type | Segment Inspection Rating |
|--------------|-----------------|--------------|---------------------------|
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Contents of Inspection Report:

☐ Levee Inspection Summary

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☒ General Instructions

Type of Inspection:

☒ Routine Inspection

☐ Periodic Inspection

☐ Special Inspection

Purpose of Special Inspection: _____

Ratings:

Segment Rating:

☐ Acceptable

☒ Minimally Acceptable

☐ Unacceptable

☐ No Verdict

System Rating:

☐ Acceptable

☒ Minimally Acceptable

☐ Unacceptable

☐ No Verdict

LSPM Signature: _____

Date Approved: _____

LSO Signature: _____

Date Approved: _____

Levee Inspection Team Members (Levee Sponsor, USACE, and Others)

| Name | Organization | Discipline | Phone Number |
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Segment Rating Rationale:

[Describe the basis of the Segment rating considering (1) the general condition of the segment, (2) the rationale for Item ratings, categorized by Feature that contributed to the Segment rating, and (3) the number or severity of notable observations/deficiencies. The summary may also include information related to the condition of the levee, not otherwise captured in the Levee Inspection Checklist, if applicable.]

The general condition of the segment was minimally acceptable. Overall most of the rated items were rated minimally acceptable or acceptable, with the exception of three items that received an unacceptable rating. The items that received an unacceptable rating were as follows: encroachment on the levee embankment via a school/parking area, the condition of concrete surfaces for the flood damage reduction channels, and the observed tilting of the flood damage reduction channels. Based on observations during the 2022 routine inspection, the flood protection system segment will still function as originally designed.

System Rating Rationale:

[Synthesize information from the Segment rating rationales for each Segment within the System. For single-segment systems, see segment rating rationale above.]

General Items for All Flood Damage Reduction Segments / Systems: Bennington, Roaring Branch Left Bank
For use during all inspections of all Flood Damage Reduction Segments / Systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|---|----------|-------------------|--|--|
| 1. Operations and Maintenance Manuals | M | A | Levee Owner's Manual, O&M Manuals, and/or manufacturer's operating instructions are present. | Justification: A copy of the original project O&M Manual is kept at the pump station. The local sponsor should regularly update the O&M Manual in accordance with current USACE guidelines. |
| | | M | Sponsor manuals are lost or missing or out of date; however, sponsor will obtain manuals prior to next scheduled inspection. | |
| | | U | Sponsor has not obtained lost or missing manuals identified during previous inspection. | |
| 2. Emergency Supplies and Equipment (A or M only) | A | A | The sponsor maintains a stockpile of sandbags, shovels, and other flood fight supplies which will adequately supply all needs for the initial days of a flood fight. Sponsor determines required quantity of supplies after consulting with inspector. | Justification: The Town of Bennington has compiled a list of emergency supplies and equipment that includes: 750,000 sand bags, 4,000 cy of sand, 800 lf of Jersey barriers, 1,500 cy of riprap, 3 tandem axle dump trucks, 2 John Deere 544 loaders, Caterpillar excavator, and numerous small pieces of equipment. |
| | | M | The sponsor does not maintain an adequate supply of flood fighting materials as part of their preparedness activities. | |
| 3. Flood Preparedness and Training (A or M only) | M | A | Sponsor has a written system-specific flood response plan and a solid understanding of how to operate, maintain, and staff the FDR system during a flood. Sponsor maintains a list of emergency contact information for appropriate personnel and other emergency response agencies. | Justification: The Town and Village of Bennington keep a Plan of Action to monitor and address road flooding and bridge scouring. The effect of flooding on the levee/floodwall are not incorporated into this plan. The local sponsor should revise their Plan of Action to include monitoring and response to emergencies along the Bennington Flood Risk Management Project. |
| | | M | The sponsor maintains a good working knowledge of flood response activities, but documentation of system-specific emergency procedures and emergency contact personnel is insufficient or out of date. | |

Levee Embankments: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of levee segments / systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|-------------------------------|----------|-------------------|--|--|
| 1. Unwanted Vegetation Growth | M | A | The levee has little or no unwanted vegetation (trees, bush, or undesirable weeds), except for vegetation that is properly contained and/or situated on overbuilt sections, such that the mandatory 3-foot root-free zone is preserved around the levee profile. The levee has been recently mowed. The vegetation-free zone extends 15 feet from both the landside and riverside toes of the levee to the centerline of the tree. If the levee access easement doesn't extend to the described limits, then the vegetation-free zone must be maintained to the easement limits. Reference EM 1110-2-301 or Corps policy for regional vegetation variance. | 2016-0002 : 0+00 : Large tree at beginning of the levee. (M) 2016-0005 : 0+00 : Tree on levee at new school entrance. (M) 2016-0012 : 0+00 : Large tree near crown of levee near ponding area. Tree was planted as part of the project. (M) 2016-0037 : 5+00 : 5+00 : Vegetation on riprap west of pump station along toe of unprotected levee slope. (M) |
| | | M | Minimal vegetation growth (brush, weeds, or trees 2 inches in diameter or smaller) is present within the zones described above. This vegetation must be removed but does not currently threaten the operation or integrity of the levee. | 2016-0063 : Line of brush and trees located on levee toe and toe drain on the protected side. (U) 2016-0089 : 25+00 : Several trees encroaching levee and levee toe drain. (M) |
| | | U | Significant vegetation growth (brush, weeds, or any trees greater than 2 inches in diameter) is present within the zones described above and must to be removed to reestablish or ascertain levee integrity. | 2016-0095 : Trees encroached on the toe of protected side of levee slope. (M) 2016-0096 : 8 inch tree stump on unprotected levee slope. Stump appears to be decomposing. (M) 2016-0097 : 8-inch diam. tree stump located on unprotected side of levee near levee crown. This section was widened. Cannot confirm in 2022 inspection due to vegetation. (M) 2016-0153 : Vegetation on the levee crown at DS #4. (M) 2016-0155 : Upstream station of DS #4, numerous trees within 15' of the protected side toe of the levee that range from 2-inch to 20-inch diameter. (U) 2022-0162 : Sod cover at up stream end of system is well maintained from the high ground tie-in to the transition to the flood wall. (A) |

Levee Embankments: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of levee segments / systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|--------------|----------|-------------------|---|---|
| 2. Sod Cover | M | A | There is good coverage of sod over the levee. | 2016-0004 : 0+00 : Poor sod cover where new school entrance crosses levee. (M) |
| | | M | Approximately 25% of the sod cover is missing or damaged over a significant portion or over significant portions of the levee embankment. This may be the result of over-grazing or feeding on the levee, unauthorized vehicular traffic, chemical or insect problems, or burning during inappropriate seasons. | 2016-0045 : 0+00 : 5+00 : Pedestrian traffic has resulted in loss of sod cover on levee crown. (M) 2016-0075 : 15+00 : Pervious toe drain material surfacing through sod cover at levee toe protected side. Cannot confirm in 2022 inspection due to vegetation. (M) |
| | | U | Over 50% of the sod cover is missing or damaged over a significant portion or portions of the levee embankment. | 2016-0088 : 25+00 : Footpath forming on riverside slope for river access. (M) |
| | | N/A | Surface protection is provided by other means. | 2016-0151 : 0+34.08C : End of levee near DS#4 over grown with weeds. (M) |

Levee Embankments: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of levee segments / systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|------------------|--------|-------------------|--|--|
| 3. Encroachments | U | A | No trash, debris, unauthorized farming activity, structures, excavations, or other obstructions present within the easement area. Encroachments have been previously reviewed by the Corps, and it was determined that they do not diminish proper functioning of the levee. | 2016-0001 : 0+00 : Utility pole, street sign, streetlight and guy wires at start of levee. School driveway was constructed through the levee. (M) 2016-0003 : 0+00 : Multiple tree roots protruding from unprotected levee slope, next to new school driveway. (M) 2016-0006 : 0+00 : 5+00 : Road signs and telephone poles at levee toe unprotected side. (M) 2016-0007 : 0+00 : New driveway to school was cut into levee embankment resulting in a reduced elevation of protection. (U) 2016-0044 : 5+00 : Large metal sign on landside levee slope. (M) 2016-0079 : 25+00 : Footpath running from toe of embankment to levee crown. (M) 2016-0080 : 25+00 : Gravel ramp running up unprotected side of levee and crown. (M) 2016-0099 : 30+00 : Levee was widened on the unprotected side from the project cross section. Area of vegetation and possible settlement is located on the riverside of original levee slope. (M) 2016-0100 : 30+00 : Large trail leading to levee. (M) 2016-0101 : 30+00 : Vehicle ramp on levee. "No vehicles" sign posted by road entrance to levee. Blocked by rope. Sign and rope were torn down at the time of 2022 inspection. (M) 2016-0158 : 5+66C : Gravel ramp leading to levee not on project plans. (M) 2016-0159 : 5+66C : Wooden garden fence posts at levee tie in (M) 2016-0160 : 5+66C : The levee ties into the existing ground at a private dwelling. Landscaping including a stone wheel appear to be on the levee. (M) 2022-0001 : Temporary shed from school on levee. (M) 2022-0003 : Monitoring well on levee crest near electrical Distribution Station. (M) |
| | | M | Trash, debris, unauthorized farming activity, structures, excavations, or other obstructions present, or inappropriate activities noted that should be corrected but will not inhibit operations and maintenance or emergency operations. Encroachments have not been reviewed by the Corps. | |
| | | U | Unauthorized encroachments or inappropriate activities noted are likely to inhibit operations and maintenance, emergency operations, or negatively impact the integrity of the levee. | |

Levee Embankments: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of levee segments / systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|-------------------------|--------|-------------------|--|--|
| 4. Closure Structures | NA | A | Closure structure in good repair. Placing equipment, stoplogs, and other materials are readily available at all times. Components are clearly marked and installation instructions/ procedures readily available. Trial erections have been accomplished in accordance with the O&M Manual. | |
| | | U | Any of the following issues is cause for this rating: Closure structure in poor condition. Parts missing or corroded. Placing equipment may not be available within the anticipated warning time. The storage vaults cannot be opened during the time of inspection. Components of closure are not clearly marked and installation instructions/ procedures are not readily available. Trial erections have not been accomplished in accordance with the O&M Manual. | |
| | | N/A | There are no closure structures along this component of the FDR segment / system. | |
| 5. Slope Stability | M | A | No slides, sloughs, tension cracking, slope depressions, or bulges are present. | 2016-0057 : Levee slope appears to be sliding on unprotected side. Levee irregularity appears to be a localized bearing failure of the crown due to vehicle loads. (M) 2016-0060 : 10+00 : Multiple depressions in levee slope on protected side. Cannot confirm in 2022 inspection due to vegetation. (M) |
| | | M | Minor slope stability problems that do not pose an immediate threat to the levee embankment. | |
| | | U | Major slope stability problems (ex. deep seated sliding) identified that must be repaired to reestablish the integrity of the levee embankment. | |
| 6. Erosion/ Bank Caving | M | A | No erosion or bank caving is observed on the landward or riverward sides of the levee that might endanger its stability. | 2016-0038 : 5+00 : Erosion and lack of sod cover at pump station due to the local citizens and students walking and riding bikes past the pumping station from the north. (M) 2016-0048 : 5-ft wide depression on unprotected embankment near riprap. Could not confirm in 2022 inspection due to vegetation. (M) |
| | | M | There are areas where minor erosion is occurring or has occurred on or near the levee embankment, but levee integrity is not threatened. | |
| | | U | Erosion or caving is occurring or has occurred that threatens the stability and integrity of the levee. The erosion or caving has progressed into the levee section or into the extended footprint of the levee foundation and has compromised the levee foundation stability. | |

Levee Embankments: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of levee segments / systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|---------------|----------|-------------------|--|--|
| 7. Settlement | M | A | No observed depressions in crown. Records exist and indicate no unexplained historical changes. | 2016-0051 : 10+00 : 25+00 : USACE survey data indicates the elevation of the levee to be approximately 1 to 2 ft lower than the as-built drawings, and up to 2.7 ft at sta 11+90. (U) 2016-0157 : 0+34.08C : 5+66C : USACE survey data indicates the elevation of the levee to be approximately 2.7 ft lower than the elevation shown on the as-built drawings. (U) 2016-0161 : 0+34.08C : Gap exists between end of concrete I-Wall and SSP cutoff wall. Significant vegetation surrounding area. (M) |
| | | M | Minor irregularities that do not threaten integrity of levee. Records are incomplete or inclusive. | |
| | | U | Obvious variations in elevation over significant reaches. No records exist or records indicate that design elevation is compromised. | |

Levee Embankments: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of levee segments / systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|----------------------------|----------|-------------------|--|--|
| 8. Depressions/ Rutting | M | A | There are scattered, shallow ruts, pot holes, or other depressions on the levee that are unrelated to levee settlement. The levee crown, embankments, and access road crowns are well established and drain properly without any ponded water. | 2016-0011 : 0+00 : A small deep depression on levee crown is approximately 2' wide by 1' deep. (M) 2016-0039 : 5+00 : A footpath leading up the levee has formed a rut. (M) |
| | | M | There are some infrequent minor depressions less than 6 inches deep in the levee crown, embankment, or access roads that will pond water. | 2016-0050 : 10+00 : Minor depression of crown, forms a low point. (M) |
| | | U | There are depressions greater than 6 inches deep that will pond water. | 2016-0053 : 10+00 : Small depression running down levee slope on protected side. Cannot confirm in 2022 inspection due to vegetation. (M) 2016-0056 : 10+00 : Foot path has made a depression running up levee slope on protected side. (M) 2016-0058 : 10+00 : Rutting on toe of levee on protected side. Cannot confirm in 2022 inspection due to vegetation. (M) 2016-0062 : 15+00 : Large hole in unprotected side filled with rocks. Cannot confirm in 2022 inspection due to vegetation. (M) 2016-0065 : 15+00 : Depression in levee slope on protected side. Levee slope is irregular and is typical conditions. (M) 2016-0074 : 15+00 : Rutting at toe of levee on protected side. Cannot confirm in 2022 inspection due to vegetation. (M) 2016-0076 : 15+00 : Depression on levee toe protected side. Cannot confirm in 2022 inspection due to vegetation. (M) 2016-0078 : 15+00 : Footpath on unprotected side of levee has formed a rut. (M) 2016-0085 : 25+00 : Depression in levee crown extends from gravel ramp to power sub-station. (M) 2016-0094 : 30+00 : Rutting and/or sliding of levee toe landside. Cannot confirm in 2022 inspection due to vegetation. (M) 2016-0098 : 30+00 : Rutting at levee toe protected side. (M) 2016-0103 : 30+00 : Elevation of the levee at the tie-in with the floodwall appears to be low as the sheet pile is exposed. (M) |

Levee Embankments: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of levee segments / systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|--------------------|----------|-------------------|---|---|
| | | | | 2016-0154 : 0+34.08C : 0+34.08C : Levee crown is rounding and slopes toward the unprotected side of the levee. (M) 2016-0156 : 5+66C : A small depression on the levee crown. (M) |
| 9. Cracking | A | A | Minor longitudinal, transverse, or desiccation cracks with no vertical movement along the crack. No cracks extend continuously through the levee crest. | Justification: No issues observed |
| | | M | Longitudinal and/or transverse cracks up to 6 inches in depth with no vertical movement along the crack. No cracks extend continuously through the levee crest. Longitudinal cracks are no longer than the height of the levee. | |
| | | U | Cracks exceed 6 inches in depth. Longitudinal cracks are longer than the height of the levee and/or exhibit vertical movement along the crack. Transverse cracks extend through the entire levee width. | |
| 10. Animal Control | M | A | Continuous animal burrow control program in place that includes the elimination of active burrowing and the filling in of existing burrows. | 2016-0035 : 5+00 : Animal burrow at wingwall of pump station. Cannot confirm in 2022 inspection due to vegetation. (M) 2016-0036 : 5+00 : 8" by 3' deep animal burrow near top of crown adjacent to pump station. Cannot confirm in 2022 inspection due to vegetation. (M) 2016-0054 : 10+00 : Animal burrow on protected side of levee slope by ponding area. 3.5' by 6" diameter. Cannot confirm in 2022 inspection due to vegetation. (A) 2016-0152 : Noted previously a deep borrow hole located on top of DS #4. Cannot confirm in 2022 inspection due to vegetation. (M) 2022-0002 : Multiple animal burrows on protected side slope. (M) |
| | | M | The existing animal burrow control program needs to be improved. Several burrows are present which may lead to seepage or slope stability problems, and they require immediate attention. | |
| | | U | Animal burrow control program is not effective or is nonexistent. Significant maintenance is required to fill existing burrows, and the levee will not provide reliable flood protection until this maintenance is complete. | |

Levee Embankments: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of levee segments / systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|--|--------|-------------------|---|---|
| 11. Culverts / Discharge Pipes (This item includes both concrete and corrugated metal pipes.) | U | A | There are no breaks, holes, cracks in the discharge pipes/ culverts that would result in significant water leakage. The pipe shape is still essentially circular. All joints appear to be closed and the soil tight. Corrugated metal pipes, if present, are in good condition with 100% of the original coating still in place (either asphalt or galvanizing) or have been relined with appropriate material, which is still in good condition. Condition of pipes has been verified using television camera video taping or visual inspection methods within the past five years, and the report for every pipe is available for review by the inspector. | 2016-0084 : 15+00 : The 11 Nov 2014 video inspection of D.S. #2 shows off set joints with soil loss into the culvert. (U) 2016-0104 : 30+00 : The culvert to D.S. # 3 contains small cobbles, pipe sections seem to be offset, and there appears to be a belly in the pipe. The 11 Nov 2014 video inspection report notes a circumferential fracture at 13.1 ft, however the video shows more damage. Vegetation surrounding structure in 2022 inspection. (U) |
| | | M | There are a small number of corrosion pinholes or cracks that could leak water and need to be repaired, but the entire length of pipe is still structurally sound and is not in danger of collapsing. Pipe shape may be ovalized in some locations but does not appear to be approaching a curvature reversal. A limited number of joints may have opened and soil loss may be beginning. Any open joints should be repaired prior to the next inspection. Corrugated metal pipes, if present, may be showing corrosion and pinholes but there are no areas with total section loss. Condition of pipes has been verified using television camera video taping or visual inspection methods within the past five years, and the report for every pipe is available for review by the inspector. | |
| | | U | Culvert has deterioration and/or has significant leakage; it is in danger of collapsing or as already begun to collapse. Corrugated metal pipes have suffered 100% section loss in the invert. HOWEVER: Even if pipes appear to be in good condition, as judged by an external visual inspection, an Unacceptable Rating will be assigned if the condition of pipes has not been verified using television camera video taping or visual inspection methods within the past five years, and reports for all pipes are not available for review by the inspector. | |
| | | N/A | There are no discharge pipes/ culverts. | |

Levee Embankments: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of levee segments / systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|--|-----------|-------------------|--|---|
| 12. Riprap Revetments & Bank Protection | M | A | No riprap displacement or stone degradation that could pose an immediate threat to the integrity of channel bank. Riprap intact with no woody vegetation present. | 2022-0163 : 40+00 : 45+00 : There was significant vines and start of small trees on riprap. Highly recommend that the city begin a vegetation spray control plan to keep this under control. Once this becomes established it is significantly more costly to get back under control. (M) Justification: No issues observed |
| | | M | Minor riprap displacement or stone degradation that could pose an immediate threat to the integrity of the channel bank. Unwanted vegetation must be cleared or sprayed with an appropriate herbicide. | |
| | | U | Significant riprap displacement, exposure of bedding, or stone degradation observed. Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Rock protection is hidden by dense brush, trees, or grasses. | |
| | | N/A | There is no riprap protecting this feature of the segment / system, or riprap is discussed in another section. | |
| 13. Revetments other than Riprap | NA | A | Existing revetment protection is properly maintained, undamaged, and clearly visible. | |
| | | M | Minor revetment displacement or deterioration that does not pose an immediate threat to the integrity of the levee. Unwanted vegetation must be cleared or sprayed with an appropriate herbicide. | |
| | | U | Significant revetment displacement, deterioration, or exposure of bedding observed. Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Revetment protection is hidden by dense brush and trees. | |
| | | N/A | There are no such revetments protecting this feature of the segment / system. | |

Levee Embankments: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of levee segments / systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|---|--------|-------------------|---|---|
| 14. Underseepage Relief Wells/ Toe Drainage Systems | U | A | Toe drainage systems and pressure relief wells necessary for maintaining FDR segment / system stability during high water functioned properly during the last flood event and no sediment is observed in horizontal system (if applicable). Nothing is observed which would indicate that the drainage systems won't function properly during the next flood, and maintenance records indicate regular cleaning. Wells have been pumped tested within the past 5 years and documentation is provided. | 2016-0059 : 10+00 : New school parking lot runs up against the levee toe drain, and interior drainage ditch. Drainage ditch is constructed from pervious material and is now sod covered - determine if this is an appropriate cover. (U) |
| | | M | Toe drainage systems or pressure relief wells are damaged and may become clogged if they are not repaired. Maintenance records are incomplete or indicate irregular cleaning and pump testing. | |
| | | U | Toe drainage systems or pressure relief wells necessary for maintaining FDR segment / system stability during flood events have fallen into disrepair or have become clogged. No maintenance records. No documentation of the required pump testing. | |
| | | N/A | There are no relief wells/ toe drainage systems along this component of the FDR segment / system. | |
| 15. Seepage | A | A | No evidence or history of unrepaired seepage, saturated areas, or boils. | Justification: No evidence of seepage |
| | | M | Evidence or history of minor unrepaired seepage or small saturated areas at or beyond the landside toe but not on the landward slope of levee. No evidence of soil transport. | |
| | | U | Evidence or history of active seepage, extensive saturated areas, or boils. | |

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction

Floodwalls: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of all floodwalls

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|-------------------------------|----------|-------------------|--|---|
| 1. Unwanted Vegetation Growth | M | A | A grass-only or paved zone is maintained on both sides of the floodwall, free of all trees, brush, and undesirable weeds. The vegetation-free zone extends 15 feet from both the land and riverside of the floodwall, at ground-level, to the centerline of the tree. Additionally, an 8- foot root-free zone is maintained around the entire structure, including the floodwall toe, heel, and any toe-drains. If the floodwall access easement doesn't extend to the described limits, then the vegetation-free zone must be maintained to the easement limits. Reference EM 1110- 2-301 and/or Corps policy for regional vegetation variance. | 2016-0105 : Unwanted vegetation growth on both protected and unprotected side of floodwall. Vegetation hinders inspection of floodwalls in 2022. (M) 2016-0110 : Large tree stump 3-ft diam. located within 15-ft of floodwall. Cannot confirm in 2022 inspection due to vegetation. (M) 2022-0007 : Large tree root 3' from wall. (U) |
| | | M | Minimal vegetation growth (brush, weeds, or trees 2 inches in diameter or smaller) is present within the zones described above. This vegetation must be removed but does not currently threaten the operation or integrity of the floodwall. | |
| | | U | Significant vegetation growth (brush, weeds, or any trees greater than 2 inches in diameter) is present within the zones described above. This vegetation threatens the operation or integrity of the floodwall and must be removed. | |
| 2. Encroachments | M | A | No trash, debris, unauthorized structures, excavations, or other obstructions present within the easement area. Encroachments have been previously reviewed by the Corps, and it was determined that they do not diminish proper functioning of the floodwall. | 2016-0109 : Debris obstructing access to floodwall protected side. (M) 2016-0111 : 30+00 : Vegetation and yard debris within 15-ft of local floodwall. (M) 2016-0117 : 40+00 : Vegetation, yard debris, and a metal fence within 15-ft of local floodwall. (M) 2016-0119 : Trailer and garage against local floodwall protected side. 2022: Trailer is gone. Garage still remains. (M) |
| | | M | Trash, debris, unauthorized structures, excavations, or other obstructions present, or inappropriate activities noted that should be corrected but will not inhibit operations and maintenance or emergency operations. Encroachments have not been reviewed by the Corps. | |
| | | U | Unauthorized encroachments or inappropriate activities noted are likely to inhibit operations and maintenance, emergency operations, or negatively impact the integrity of the floodwall. | |

Floodwalls: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of all floodwalls

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|---|--------|-------------------|--|---|
| 3. Closure Structures (Stop Log Closures and Gates) (A or U only) | NA | A | Closure structure in good repair. Placing equipment, stoplogs, and other materials are readily available at all times. Components are clearly marked and installation instructions/ procedures readily available. Trial erections have been accomplished in accordance with the O&M Manual. | |
| | | U | Any of the following issues is cause for this rating: Closure structure in poor condition. Parts missing or corroded. Placing equipment may not be available within the anticipated warning time. The storage vaults cannot be opened during the time of inspection. Components of closure are not clearly marked and installation instructions/ procedures are not readily available. Trial erections have not been accomplished in accordance with the O&M Manual. | |
| | | N/A | There are no closure structures along this component of the FDR segment / system. | |
| 4. Concrete Surfaces | M | A | Negligible spalling, scaling or cracking. If the concrete surface is weathered or holds moisture, it is still satisfactory but should be seal coated to prevent freeze/ thaw damage. | 2016-0107 : Minor cracking on end of concrete floodwall (where floodway ties into levee embankment). Crack is a reflection of sheeting. (M) 2016-0112 : 30+00 : Vertical crack in local floodwall on protected side. Cannot confirm in 2022 inspection due to vegetation. (M) 2016-0114 : 40+00 : Surface defects on the protected face of the local floodwall. (M) 2016-0115 : 30+00 : A hole in the local retaining wall was not patched after the tie holding the forms was removed. (M) 2016-0116 : 30+00 : A pair of vertical cracks with efflorescence near the monolith joint. (M) 2016-0118 : 40+00 : Horizontal cracking on both protected and unprotected faces of local floodwall with efflorescence. (M) 2016-0120 : 40+00 : Spalling of local floodwall at monolith joint on unprotected side. (M) 2016-0121 : Concrete spalling along top of local floodwall, exposed reinforcement. (M) 2016-0123 : 40+00 : Vertical crack extending height of wall near bridge abutment. (M) 2016-0124 : 40+00 : 6" by 6" spall at bridge abutment joint upstream. (M) 2016-0137 : 40+00 : Cracking and spalling of retaining wall on protected side. (M) |
| | | M | Spalling, scaling, and open cracking present, but the immediate integrity or performance of the structure is not threatened. Reinforcing steel may be exposed. Repairs/ sealing is necessary to prevent additional damage during periods of thawing and freezing. | |
| | | U | Surface deterioration or deep cracks present that may result in an unreliable structure. Any surface deterioration that exposes the sheet piling or lies adjacent to monolith joints may indicate underlying reinforcement corrosion and is unacceptable. | |

Floodwalls: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of all floodwalls

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|--|----------|-------------------|---|---|
| 5. Tilting, Sliding or Settlement of Concrete Structures | M | A | There are no significant areas of tilting, sliding, or settlement that would endanger the integrity of the structure. | 2016-0108 : Noted in the previous inspection, 2-inch joint separation between floodwall and abutment. The joint between monolith #6 and the local floodwall has displacement 1-5/8-in. The monolith also tips slightly to the unprotected side. Cannot confirm in 2022 inspection due to vegetation. (M) 2016-0149 : 0+34.08C : 1/2-inch vertical displacement at monolith joint between monoliths 7 & 8. (M) 2022-0005 : 39+10 : Concrete at joint between monoliths severely degraded. Large (18") piece of concrete loosely hanging off water side of floodwall. Severe cracking on top of the floodwall at the joint. (M) |
| | | M | There are areas of tilting, sliding, or settlement (either active or inactive) that need to be repaired. The maximum offset, either laterally or vertically, does not exceed 2 inches unless the movement can be shown to be no longer actively occurring. The integrity of the structure is not in danger. | |
| | | U | There are areas of tilting, sliding, or settlement (either active or inactive) that threaten the structure's integrity and performance. Any movement that has resulted in failure of the waterstop (possibly identified by daylight visible through the joint) is unacceptable. Differential movement of greater than 2 inches between any two adjacent monoliths, either laterally or vertically, is unacceptable unless it can be shown that the movement is no longer active. Also, if the floodwall is of I-wall construction, then any visible or measurable tilting of the wall toward the protected side that has created an open horizontal crack on the riverside base of a monolith is unacceptable. | |
| 6. Foundation of Concrete Structures | A | A | No active erosion, scouring, or bank caving that might endanger the structure's stability. | Justification: No issues observed |
| | | M | There are areas where the ground is eroding towards the base of the structure. Efforts need to be taken to slow and repair this erosion, but it is not judged to be close enough to the structure or to be progressing rapidly enough to affect structural stability before the next inspection. For the purposes of inspection, the erosion or scour is not closer to the riverside face of the wall than twice the floodwall's underground base width if the wall is of L-wall or T-wall construction; or if the wall is of sheetpile or I-wall construction, the erosion is not closer than twice the wall's visible height. Additionally, rate of erosion is such that the wall is expected to remain stable until the next inspection. | |
| | | U | Erosion or bank caving observed that is closer to the wall than the limits described above, or is outside these limits but may lead to structural instabilities before the next inspection. Additionally, if the floodwall is of I-wall or sheetpile construction, the foundation is unacceptable if any turf, soil or pavement material got washed away from the landside of the I-wall as the result of a previous overtopping event. | |

Floodwalls: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of all floodwalls

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|--|-----------|-------------------|---|--|
| 7. Monolith Joints | M | A | The joint material is in good condition. The exterior joint sealant is intact and cracking/ desiccation is minimal. Joint filler material and/or waterstop is not visible at any point. | 2016-0129 : 40+00 : Monolith joint offset of 3/4 inch. Water Stop is broken. (M) 2016-0148 : 0+00C : Separation at monolith joint where local retaining wall meets floodwall monolith #7. (M) |
| | | M | The joint material has appreciable deterioration to the point where joint filler material and/or waterstop is visible in some locations. This needs to be repaired or replaced to prevent spalling and cracking during freeze/ thaw cycles, and to ensure water tightness of the joint. | |
| | | U | The joint material is severely deteriorated or the concrete adjacent to the monolith joints has spalled and cracked, damaging the waterstop; in either case damage has occurred to the point where it is apparent that the joint is no longer watertight and will not provide the intended level of protection during a flood. | |
| | | N/A | There are no monolith joints in the floodwall. | |
| 8. Underseepage Relief Wells/ Toe Drainage Systems | NA | A | Toe drainage systems and pressure relief wells necessary for maintaining FDR segment / system stability during high water functioned properly during the last flood event and no sediment is observed in horizontal system (if applicable). Nothing is observed which would indicate that the drainage systems won't function properly during the next flood, and maintenance records indicate regular cleaning. Wells have been pumped tested within the past 5 years and documentation is provided. | |
| | | M | Toe drainage systems or pressure relief wells are damaged and may become clogged if they are not repaired. Maintenance records are incomplete or indicate irregular cleaning and pump testing. | |
| | | U | Toe drainage systems or pressure relief wells necessary for maintaining FDR segment / system stability during flood events have fallen into disrepair or have become clogged. No maintenance records. No documentation of the required pump testing. | |
| | | N/A | There are no relief wells/ toe drainage systems along this component of the FDR segment / system. | |
| 9. Seepage | M | A | No evidence or history of unrepaired seepage, saturated areas, or boils. | 2022-0006 : 39+10 : Small rodent hole about one foot deep and 3 inches in diameter behind floodwall. (M) |
| | | M | Evidence or history of minor unrepaired seepage or small saturated areas at or beyond the landside toe but not on the landward slope of levee. No evidence of soil transport. | |
| | | U | Evidence or history of active seepage, extensive saturated areas, or boils. | |

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction

Interior Drainage System: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of interior drainage systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|--------------------------------|----------|-------------------|---|---|
| 1. Vegetation and Obstructions | M | A | No obstructions, vegetation, debris, or sediment accumulation noted within interior drainage channels or blocking the culverts, inlets, or discharge areas. Concrete joints and weep holes are free of grass and weeds. | 2016-0070 : 15+00 : Drainage ditch is partially filled. (M) 2016-0145 : 0+00C : 40+00 : It was noted previously that the drainage ditch leading from DS #4 was filled in by riprap. The path for the discharge from DS #4 appears to slope upward for some distance. (M) 2016-0150 : DS #4 debris and vegetation in front of structure. Most of the vegetation has been cut, but some remains. Outfall looks clear and flapgate closes. Intake is covered with leaves and debris. (U) |
| | | M | Obstructions, vegetation, debris, or sediment are minor and have not impaired channel flow capacity or blocked more than 10% of any culvert openings, but should be removed. A limited volume of grass and weeds may be present in concrete channel joints and weep holes. | |
| | | U | Obstructions, vegetation, debris, or sediment have impaired the channel flow capacity or blocked more than 10% of a culvert opening. Sediment and debris removal required to reestablish flow capacity. | |
| 2. Encroachments | M | A | No trash, debris, unauthorized structures, excavations, or other obstructions present within the easement area. Encroachments have been previously reviewed by the Corps, and it was determined that they do not diminish proper functioning of the interior drainage system. | 2016-0008 : Two HDPE stormwater drains enter ponding area and are not shown on the project plans. (M) 2016-0009 : Changes at the school includes a parking lot adjacent to the ponding area and removal of the perimeter fence. (M) 2016-0032 : 5+00 : 15-inch HDPE at pumping station outlet not on project plans. (M) 2016-0064 : 15+00 : 4" PVC drainage pipe discharges into the drainage ditch is not shown on the project plans. Cannot locate in 2022 inspection due to vegetation. (M) 2016-0067 : 15+00 : Asphalt driveway is approx. 16 feet from centerline of ditch. (M) 2016-0071 : 15+00 : Wooden structure and garden within 15 feet of drainage ditch/toe drain. (M) |
| | | M | Trash, debris, unauthorized structures, excavations, or other obstructions present, or inappropriate activities noted that should be corrected but will not inhibit operations and maintenance or emergency operations. Encroachments have not been reviewed by the Corps. | |
| | | U | Unauthorized encroachments or inappropriate activities noted are likely to inhibit operations and maintenance, emergency operations, or negatively impact the integrity of this component of the interior drainage system. | |
| 3. Ponding Areas | M | A | No trash, debris, structures, or other obstructions present within the ponding areas. Sediment deposits do not exceed 10% of capacity. | 2016-0046 : 5+00 : Ponding area appears to have been filled and leveled to accommodate a sports field. (M) |
| | | M | Trash, debris, excavations, structures, or other obstructions present, or inappropriate activities that will not inhibit operations and maintenance. Sediment deposits do not exceed 30% of capacity. | |
| | | U | Trash, debris, excavations, structures, or other obstructions, or other encroachments or activities noted that will inhibit operations, maintenance, or emergency work. Sediment deposits exceeds 30% of capacity. | |
| | | N/A | There are no ponding areas associated with the interior drainage system. | |

Interior Drainage System: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of interior drainage systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|--|----------|-------------------|---|--|
| 4. Fencing and Gates | A | A | Fencing is in good condition and provides protection against falling or unauthorized access. Gates open and close freely, locks are in place, and there is little corrosion on metal parts. | Justification: No issues observed |
| | | M | Fencing or gates are damaged or corroded but appear to be maintainable. Locks may be missing or damaged. | |
| | | U | Fencing and gates are damaged or corroded to the point that replacement is required, or potentially dangerous features are not secured. | |
| | | N/A | There are no features noted that require safety fencing. | |
| 5. Concrete Surfaces (Such as gatewells, outfalls, intakes, or culverts) | M | A | Negligible spalling, scaling or cracking. If the concrete surface is weathered or holds moisture, it is still satisfactory but should be seal coated to prevent freeze/ thaw damage. | 2016-0031 : 5+00 : Vertical crack in drainage structure of pumping station on backside. (M) 2016-0034 : 5+00 : Cracking with efflorescence on top of drainage structure at pumping station. (M) |
| | | M | Spalling, scaling, and open cracking present, but the immediate integrity or performance of the structure is not threatened. Reinforcing steel may be exposed. Repairs/ sealing is necessary to prevent additional damage during periods of thawing and freezing. | |
| | | U | Surface deterioration or deep cracks present that may result in an unreliable structure. Any surface deterioration that exposes the sheet piling or lies adjacent to monolith joints may indicate underlying reinforcement corrosion and is unacceptable. | |
| | | N/A | There are no concrete items in the interior drainage system. | |

Interior Drainage System: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of interior drainage systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|--|----------|-------------------|--|--|
| 6. Tilting, Sliding or Settlement of Concrete and Sheet Pile Structures (Such as gate wells, outfalls, intakes, or culverts) | A | A | There are no significant areas of tilting, sliding, or settlement that would endanger the integrity of the structure. | Justification: No issues observed |
| | | M | There are areas of tilting, sliding, or settlement (either active or inactive) that need to be repaired. The maximum offset, either laterally or vertically, does not exceed 2 inches unless the movement can be shown to be no longer actively occurring. The integrity of the structure is not in danger. | |
| | | U | There are areas of tilting, sliding, or settlement (either active or inactive) that threaten the structure's integrity and performance. Any movement that has resulted in failure of the waterstop (possibly identified by daylight visible through the joint) is unacceptable. Differential movement of greater than 2 inches between any two adjacent monoliths, either laterally or vertically, is unacceptable unless it can be shown that the movement is no longer active. Also, if the floodwall is of I-wall construction, then any visible or measurable tilting of the wall toward the protected side that has created an open horizontal crack on the riverside base of a monolith is unacceptable. | |
| | | N/A | There are no concrete items in the interior drainage system. | |
| 7. Foundation of Concrete Structures (Such as culverts, inlet and discharge structures, or gatewells.) | A | A | No active erosion, scouring, or bank caving that might endanger the structure's stability. | Justification: No issues observed |
| | | M | There are areas where the ground is eroding towards the base of the structure. Efforts need to be taken to slow and repair this erosion, but it is not judged to be close enough to the structure or to be progressing rapidly enough to affect structural stability before the next inspection. The rate of erosion is such that the structure is expected to remain stable until the next inspection. | |
| | | U | Erosion or bank caving observed that may lead to structural instabilities before the next inspection. | |
| | | N/A | There are no concrete items in the interior drainage system. | |

Interior Drainage System: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of interior drainage systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|--------------------|----------|-------------------|--|--|
| 8. Monolith Joints | A | A | The joint material is in good condition. The exterior joint sealant is intact and cracking/ desiccation is minimal. Joint filler material and/or waterstop is not visible at any point. | Justification: No issues observed |
| | | M | The joint material has appreciable deterioration to the point where joint filler material and/or waterstop is visible in some locations. This needs to be repaired or replaced to prevent spalling and cracking during freeze/ thaw cycles, and to ensure water tightness of the joint. | |
| | | U | The joint material is severely deteriorated or the concrete adjacent to the monolith joints has spalled and cracked, damaging the waterstop; in either case damage has occurred to the point where it is apparent that the joint is no longer watertight and will not provide the intended level of protection during a flood. | |
| | | N/A | There are no monolith joints in the interior drainage system. | |

Interior Drainage System: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of interior drainage systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|-------------------------------|----------|-------------------|---|---|
| 9. Culverts / Discharge Pipes | A | A | There are no breaks, holes, cracks in the discharge pipes/ culverts that would result in significant water leakage. The pipe shape is still essentially circular. All joints appear to be closed and the soil tight. Corrugated metal pipes, if present, are in good condition with 100% of the original coating still in place (either asphalt or galvanizing) or have been relined with appropriate material, which is still in good condition. Condition of pipes has been verified using television camera video taping or visual inspection methods within the past five years, and the report for every pipe is available for review by the inspector. | 2016-0082 : 15+00 : DS #2 drop inlet appears clean and functional. (A) 2016-0106 : 30+00 : Rating: Acceptable; Remarks: DS #3 drop inlet appears clean and functional. (A) |
| | | M | There are a small number of corrosion pinholes or cracks that could leak water and need to be repaired, but the entire length of pipe is still structurally sound and is not in danger of collapsing. Pipe shape may be ovalized in some locations but does not appear to be approaching a curvature reversal. A limited number of joints may have opened and soil loss may be beginning. Any open joints should be repaired prior to the next inspection. Corrugated metal pipes, if present, may be showing corrosion and pinholes but there are no areas with total section loss. Condition of pipes has been verified using television camera video taping or visual inspection methods within the past five years, and the report for every pipe is available for review by the inspector. | |
| | | U | Culvert has deterioration and/or has significant leakage; it is in danger of collapsing or as already begun to collapse. Corrugated metal pipes have suffered 100% section loss in the invert. HOWEVER: Even if pipes appear to be in good condition, as judged by an external visual inspection, an Unacceptable Rating will be assigned if the condition of pipes has not been verified using television camera video taping or visual inspection methods within the past five years, and reports for all pipes are not available for review by the inspector. | |
| | | N/A | There are no discharge pipes/ culverts. | |

Interior Drainage System: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of interior drainage systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|---|-----------|-------------------|--|---|
| 10. Sluice / Slide Gates | NA | A | Gates open and close freely to a tight seal or minor leakage. Gate operators are in good working condition and are properly maintained. Sill is free of sediment and other obstructions. Gates and lifters have been maintained and are free of corrosion. Documentation provided during the inspection. | |
| | | M | Gates and/or operators have been damaged or have minor corrosion, and open and close with resistance or binding. Leakage quantity is controllable, but maintenance is required. Sill is free of sediment and other obstructions. | |
| | | U | Gates do not open or close and/or operators do not function. Gate, stem, lifter and/or guides may be damaged or have major corrosion. | |
| | | N/A | There are no sluice/ slide gates. | |
| 11. Flap Gates/ Flap Valves/ Pinch Valves | M | A | Gates/ valves open and close easily with minimal leakage, have no corrosion damage, and have been exercised and lubricated as required. | 2016-0081 : 15+00 : DS#2 outfall was reconstructed in 2012. Concrete is in good condition except for 12" spall on top of floodwall. Flap gate operational and pipe is clear. Vegetation surrounding DS #2 and in drainage channel outlet. (A) 2016-0102 : Noted previously vegetation covering flap gate for D.S. #3. Structure is obscured greatly by vegetation and is becoming very overgrown. Flap gate still operates. Cannot confirm in 2022 inspection due to vegetation. (M) |
| | | M | Gates/ valves will not fully open or close because of obstructions that can be easily removed, or have minor corrosion damage that requires maintenance. | |
| | | U | Gates/ valves are missing, have been damaged, or have deteriorated to the point that they need to be replaced. | |
| | | N/A | There are no flap gates. | |
| 12. Trash Racks (non-mechanical) | NA | A | Trash racks are fastened in place and properly maintained. | |
| | | M | Trash racks are in place but are unfastened or have bent bars that allow debris to enter into the pipe or pump station, bars are corroded to the point that up to 10% of the sectional area may be lost. Repair or replacement is required. | |
| | | U | Trash racks are missing or damaged to the extent that they are no longer functional and must be replaced. (For example, more than 10% of the sectional area may be lost.) | |
| | | N/A | There are no trash racks, or they are covered in the pump stations section of the report. | |

Interior Drainage System: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of interior drainage systems

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|---|-----------|-------------------|--|---|
| 13. Other Metallic Items | NA | A | All metal parts are protected from corrosion damage and show no rust, damage, or deterioration that would cause a safety concern. | |
| | | M | Corrosion seen on metallic parts appears to be maintainable. | |
| | | U | Metallic parts are severely corroded and require replacement to prevent failure, equipment damage, or safety issues. | |
| | | N/A | There are no other significant metallic items. | |
| 14. Riprap Revetments of Inlet/ Discharge Areas | M | A | No riprap displacement or stone degradation that could pose an immediate threat to the integrity of channel bank. Riprap intact with no woody vegetation present. | 2016-0055 : 10+00 : Erosion, scouring and undermining next to concrete toe drain outlet channel. The channel itself is spalling. The headwall also has spalling. Pipe was video inspected and cleaned. Minor vegetation in toe drain. (M) |
| | | M | Minor riprap displacement or stone degradation that could pose an immediate threat to the integrity of the channel bank. Unwanted vegetation must be cleared or sprayed with an appropriate herbicide. | |
| | | U | Significant riprap displacement, exposure of bedding, or stone degradation observed. Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Rock protection is hidden by dense brush, trees, or grasses. | |
| | | N/A | There is no riprap protecting this feature of the segment / system, or riprap is discussed in another section. | |
| 15. Revetments other than Riprap | A | A | No riprap displacement or stone degradation that could pose an immediate threat to the integrity of channel bank. Riprap intact with no woody vegetation present. | Justification: No issues observed |
| | | M | Minor riprap displacement or stone degradation that could pose an immediate threat to the integrity of the channel bank. Unwanted vegetation must be cleared or sprayed with an appropriate herbicide. | |
| | | U | Significant riprap displacement, exposure of bedding, or stone degradation observed. Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Rock protection is hidden by dense brush, trees, or grasses. | |
| | | N/A | There are no such revetments protecting this feature of the segment / system. | |

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction

Pump Stations: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of pump stations

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|---|----------|-------------------|--|---|
| 1. Pump Stations Operating, Maintenance, Training, & Inspection Records | M | A | Operation, maintenance and inspection records are present at the pump station and are being used and updated, and personnel have been trained in pump station operations. Names and last training date shown in the record book. | 2016-0014 : 5+00 : The original O&M manual is used for training. The station is tested once a month. The staff noted that to their knowledge, the station has not been operated since 1983. A log is kept of the monthly testing. No training records are present. (M) |
| | | M | Operation, maintenance and inspection records are present but not adequately used and updated. | |
| | | U | No operation, maintenance and inspection records are present, or refresher training for personnel has not been conducted. | |
| 2. Pump Station Operations and Maintenance Equipment Manuals | M | A | Operation and Maintenance Equipment Manuals and/or posted operating instructions are present and updated as required, and adequately cover all pertinent pump station features. O&M manuals include points of contact for manufacturers and suppliers of major equipment used in the facility. | 2016-0017 : 5+00 : A copy of the 1971 O&M manual was found at the pump station. (M) |
| | | M | Operation and Maintenance Equipment Manuals and/or posted operating instructions are present and adequately cover all pertinent pump station features. However, they are incomplete and the necessary updates have not been made. | |
| | | U | Operation and Maintenance Equipment Manuals are not available. | |
| 3. Safety Compliance | A | A | Safety compliance inspection reports by applicable local, state, or federal agencies available for review. | 2016-0015 : 5+00 : All the staff responsible for the station are certified treatment plant operators. Town safety team does inspections and the results are recorded. There have been no significant findings. (A) |
| | | M | No safety compliance inspection reports are available for review. | |
| 4. Communications (A or M only) | M | A | A telephone, cellular phone, two-way radio, or similar device is available to pump station operator and maintenance personnel. | 2016-0016 : 5+00 : Cellular phone and two-way radios are used. There is also an auto dialer that notifies the town on pump failure. 2022: Auto dialer has been disconnected. (M) |
| | | M | A telephone, cellular phone, two-way radio, or similar device is not available to pump station operator and maintenance personnel. | |
| 5. Plant Building | M | A | The building is in good structural condition with no major foundation settlement problems. The roof is not leaking, intake & exhaust louvers are clear of debris, fans are operational, etc. | 2016-0013 : 5+00 : Spalling of the brick around the pump station building. (M) 2016-0018 : 5+00 : There is an electric heater in the station that is operational and the roof was replaced 2 year ago. (A) 2016-0040 : 5+00 : Spalling and cracking on front wingwall at pumping station doorway. (M) 2016-0041 : Pumping station locked, secure, and operational. (A) |
| | | M | There are minor structural defects, minimal foundation settlement, leaks, or other conditions noted that need repair. Defects do not threaten the structural integrity or stability of the building, and will not impact pumping operations. | |
| | | U | The structural integrity or stability of the building is threatened, or there is damage to the building that threatens safety of the operator or impacts pumping operations. | |

Pump Stations: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of pump stations

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|--|----------|-------------------|---|--|
| 6. Fencing and Gates | A | A | Fencing is in good condition and provides protection against falling or unauthorized access. Gates open and close freely, locks are in place, and there is little corrosion on metal parts. | 2016-0019 : 5+00 : The pump station is not fenced or otherwise protected from intrusion. Staff noted that there had been incidents of vandalism in the past. There is no fence on the As-Built drawings. (A) |
| | | M | Fencing or gates are damaged or corroded but appear to be maintainable. Locks may be missing or damaged. | |
| | | U | Fencing and gates are damaged or corroded to the point that replacement is required, or potentially dangerous features are not secured. | |
| | | N/A | There are no features noted that require safety fencing. | |
| 7. Pumps | M | A | All pumps are properly maintained and lubricated. Systems are periodically tested and documented for review. No vibration, cavitation noises or unusual sounds are noted when the pump is operated. Bearing temperature sensor records don't indicate any problems. | 2016-0020 : 5+00 : The pump station includes two(2) 30Hp vertical turbine pumps (5000 gpm at 13.5' TDH) and a 50 gpm sump pump for draining the wet well. All three were run briefly (no water in wet well) and ran without excessive noise and vibration. (M) |
| | | M | Minor deficiencies noted that need to be closely monitored or repaired, such as the presence of slight vibrations, leakage of packing gland, bearing temperature sensors are inoperable or no record is present. However, the pumps are operational and are expected to perform through the next period of usage. | |
| | | U | Major deficiencies identified that may significantly reduce pumping operations. For example, bearing sensor records indicate problems, excessive vibration noted, impellers are badly corroded, or there are eroded or missing blades. | |
| 8. Motors, Engines, Fans, Gear Reducers, Back Stop Devices, etc. | A | A | All items are operational. Preventative maintenance and lubrication is being performed and the system is periodically subjected to performance testing. Instrumentation, alarms, bearing sensors and auto shutdowns are operational. | Justification: No issues observed |
| | | M | Systems have minor deficiencies, but are operational and will function adequately through the next flood. Bearing sensors are not operational. | |
| | | U | One or more of the primary motors or systems is not operational, or noted deficiencies have not been corrected. | |

Pump Stations: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of pump stations

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|--------------------------------------|-----------|-------------------|---|--|
| 9. Sumps / Wet well | M | A | Clear of debris, sediment, or other obstructions. Procedures are in place to remove debris accumulation during operation. | 2016-0021 : 5+00 : The wet well is not cleaned regularly only when there is a problem. From the exterior it appears to be in good condition. The local sponsor verified that they use a confined space procedure when entering the wet well. (M) |
| | | M | Debris, sediment, or other obstructions may be present and must be removed, but the sump/ wet well will function as intended during the next flood. Procedures are in place to remove debris accumulation during operation. | |
| | | U | Large debris or excessive silt present which will hinder or damage pumps during operation, or no procedures established to remove debris accumulation during operation. | |
| 10. Mechanical Operating Trash Rakes | NA | A | Drive chain, bearing, gear reducers, and other components are in good operating condition and are being properly maintained. | |
| | | M | The trash rake is in need of maintenance, but is still operational. | |
| | | U | Trash rake not operational or deficiencies will inhibit operations during the next flood event. | |
| | | N/A | There are no mechanical trash rakes. | |
| 11. Non-Mechanical Trash Racks | M | A | Trash racks are fastened in place and properly maintained. | 2016-0022 : 5+00 : There are only manual trash racks which appear to be in good condition with one or two of the bars slightly bent. (M) |
| | | M | Trash racks are in place but are unfastened or have bent bars that allow debris to enter into the pipe or pump station, bars are corroded to the point that up to 10% of the sectional area may be lost. Repair or replacement is required. | |
| | | U | Trash racks are missing or damaged to the extent that they are no longer functional and must be replaced. (For example, more than 10% of the sectional area may be lost.) | |
| | | N/A | There are no trash racks, or they are covered in the pump stations section of the report. | |
| 12. Fuel System for Pump Engines | NA | A | Fuel system is operational, day tank present and operational, fuel fresh and rotated regularly. | |
| | | M | Fuel system is operational and of adequate capacity, but day tank is missing or fuel is not fresh and rotated regularly. | |
| | | U | Fuel system not functional. | |
| | | N/A | No fuel system. | |

Pump Stations: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of pump stations

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|---|----------|-------------------|--|---|
| 13. Power Source | M | A | The normal power source and backup generators, if installed, are operational, properly exercised and well maintained. Surge protection, grounding, lightning protection, transformers, and automatic/manual transfer of main power to backup system is working. | 2016-0026 : 5+00 : There is no backup power (i.e., generator) at the pumping station; nor are there provisions for connecting a mobile generator. The pumping station does not presently have a main service disconnect (main circuit breaker or main fused disconnect switch). (M) |
| | | M | Normal power source and backup units, if applicable, are operational with minor discrepancies or maintenance, inspection and exercising record is present but not up to date. Preventative maintenance or repairs are required. | |
| | | U | Normal power source or generators are not operational and must be repaired; or generator, if required, is not on site. | |
| 14. Electrical Systems | M | A | Operational and maintained free of damage, corrosion, and debris. Preventative maintenance and system testing is being performed periodically. | 2016-0027 : 5+00 : There are no lights in the wetwell or on the building exterior. The receptacles are not GFI protected. (M) |
| | | M | Operational with minor discrepancies. Preventative maintenance or repairs are required, but the components are expected to function adequately during the next flood event. | |
| | | U | Components of the electrical system will not function adequately during the next flood event and must be replaced. | |
| 15. Megger Testing on Pump Motors and Critical Power Cables | M | A | Results of megger tests on pump motors or critical power cables show that the insulation meets manufacturer's or industry standards. Tested within the last year. | 2016-0028 : 5+00 : Megger testing of the pump motors was conducted by Prue Electric on 12 Nov 2014. All tested normal with no leakage. They found the motors and leads in good condition. 2016: Need to check if testing should be done every 2 or 5 years. (M) |
| | | M | Megger testing not conducted within the past year. If megger tests on pump motors indicate that insulation resistance is below the manufacturer's or industry standard, but the resistance can be corrected with proper application of heat, this is minimally acceptable. (The application of heat does not relate to critical power cables.) | |
| | | U | Megger tests not conducted within past two years, or tests indicate that insulation resistance is low enough that the equipment will not be able to meet design standards of operation; or evidence of arcing or shorting is detected visually. | |

Pump Stations: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of pump stations

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|---|----------|-------------------|--|--|
| 16. Enclosures, Panels, Conduit and Ducts | M | A | All enclosures, panels, conduits, and ducts are protected from corrosion damage and show no rust, damage, or deterioration that would cause a safety concern. | 2016-0029 : 5+00 : There is very minor visible corrosion on the electrical enclosures. (M) |
| | | M | Minor surface corrosion which appears to be maintainable. Cleaning and painting required. | |
| | | U | Severely corroded and must be replaced to prevent failure, equipment damage, or safety issues. | |
| 17. Intake and Discharge Pipelines | M | A | Intake and discharge pipelines have no corrosion and paint is intact, except for minor touch up required. Pipe couplings and anchors have no leakage or corrosion. | 2016-0023 : 5+00 : There is no intake piping. The discharge piping is in good condition and was painted 10 years ago. (M) |
| | | M | Intake and discharge pipelines have minor corrosion and repair and painting is required. Pipe coupling with anchors have minor leakage, corrosion and require bolts to be tightened. | |
| | | U | Intake and discharge pipelines have major corrosion and replacement is required. Pipe coupling with anchors have major leakage and is heavily corroded and requires replacement. | |
| 18. Sluice/ Slide Gates | M | A | Gates open and close freely to a tight seal or minor leakage. Gate operators are in good working condition and are properly maintained. Sill is free of sediment and other obstructions. Gates and lifters have been maintained and are free of corrosion. Documentation provided during the inspection. | 2016-0024 : 5+00 : They are manual gates and the portable handle is kept in the pump station. They are greased regularly. The outlet gate could not be closed completely. There may be debris in the seat. The manual gate operators take a long time and many turns to close. (M) |
| | | M | Gates and/or operators have been damaged or have minor corrosion, and open and close with resistance or binding. Leakage quantity is controllable, but maintenance is required. Sill is free of sediment and other obstructions. | |
| | | U | Gates do not open or close and/or operators do not function. Gate, stem, lifter and/or guides may be damaged or have major corrosion. | |
| | | N/A | There are no sluice/ slide gates. | |

Pump Stations: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of pump stations

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|---|----------|-------------------|--|--|
| 19. Flap Gates/ Flap Valves/ Pinch Valves | A | A | Gates/ valves open and close easily with minimal leakage, have no corrosion damage, and have been exercised and lubricated as required. | Justification: No issues observed |
| | | M | Gates/ valves will not fully open or close because of obstructions that can be easily removed, or have minor corrosion damage that requires maintenance. | |
| | | U | Gates/ valves are missing, have been damaged, or have deteriorated to the point that they need to be replaced. | |
| | | N/A | There are no gates on discharge lines from pump station. | |
| 20. Cranes | M | A | Cranes operational and have been inspected and load tested in accordance with applicable standards within the last year. Documentation is on hand. | 2016-0025 : 5+00 : The crane is no longer used and is locked out of service. The local sponsor uses portable crane to remove motor if necessary. (M) |
| | | M | Cranes have not been inspected or operationally tested within the past year, or there are visible signs of corrosion, oil leakage, etc, requiring maintenance. | |
| | | U | Cranes are not operational, and this may prevent the pump station from functioning as required. No documentation available on cranes. | |
| | | N/A | There are no cranes. | |
| 21. Other Metallic Items (Equipment, Ladders, Platform Anchors, etc) | A | A | All metal parts are protected from corrosion damage and show no rust, damage, or deterioration that would cause a safety concern. | Justification: No issues observed |
| | | M | Corrosion seen on metallic parts appears to be maintainable. | |
| | | U | Metallic parts are severely corroded and require replacement to prevent failure, equipment damage, or safety issues. | |
| | | N/A | There are no other significant metallic items. | |

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction

Flood Damage Reduction Channels: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of flood damage reduction channels

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|-----------------------------------|----------|-------------------|--|---|
| 1. Vegetation and Obstructions | M | A | No obstructions, vegetation, debris, or sediment accumulation within the channel. Concrete channel joints and weep holes are free of grass and weeds. | 2016-0132 : 40+00 : Debris in retaining wall weephole. (M) 2016-0144 : Vegetation located along the retaining wall on unprotected side of levee. (M) |
| | | M | Obstructions (including log jams), vegetation, debris, or sediment are minor and have not impaired channel flow capacity, but should be removed. Sediment shoals have not developed to the extent that they can support vegetation other than non-aquatic grasses. A limited volume of grass and weeds may be present in concrete channel joints and weep holes. | |
| | | U | Obstructions (including log jams), vegetation, debris or sediment have impaired the channel flow capacity. Sediment shoals are well established and support woody and/or brushy vegetation. Sediment and debris removal required to re-establish flow capacity. | |
| 2. Shoaling (sediment deposition) | A | A | No shoaling or minor, non-vegetated shoaling is present. | Justification: No issues observed. |
| | | M | More widespread vegetated and non-vegetated shoaling is present. Non-aquatic grasses are present on shoal. No trees or brush is present on shoal, and channel flow is not significantly reduced. Sediment and debris removal recommended. | |
| | | U | Shoaling is well established, stabilized by saplings, brush, or other vegetation. Shoals are diverting flow to channel walls. Channel flow capacity is reduced and maintenance is required. | |
| 3. Encroachments | A | A | No trash, debris, unauthorized structures, excavations, or other obstructions present within the easement area. Encroachments have been previously reviewed by the Corps, and it was determined that they do not diminish proper functioning of the channel. | Justification: No issues observed |
| | | M | Trash, debris, unauthorized structures, excavations, or other obstructions present, or inappropriate activities noted that should be corrected but will not inhibit operations and maintenance or emergency operations. Encroachments have not been reviewed by the Corps. | |
| | | U | Unauthorized encroachments or inappropriate activities noted are likely to inhibit operations and maintenance, emergency operations, or negatively impact the integrity of the channel. | |

Flood Damage Reduction Channels: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of flood damage reduction channels

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|----------------------|----------|-------------------|---|--|
| 4. Erosion | A | A | No head cutting or horizontal deviation observed. | Justification: No issues observed |
| | | M | Head cutting and horizontal deviation evident, but is less than 1 foot from the designed grade or cross section. | |
| | | U | Head cutting and horizontal deviation of more than 1 foot from the designed grade or cross section. Corrective actions required to stop or slow erosion. | |
| 5. Concrete Surfaces | U | A | Negligible spalling, scaling or cracking. If the concrete surface is weathered or holds moisture, it is still satisfactory but should be seal coated to prevent freeze/ thaw damage. | 2016-0122 : 0+00C : 40+00 : Horizontal cracking on the unprotected face of the local sponsor constructed retaining wall with efflorescence running entire length of retaining wall. (U) 2016-0127 : 40+00 : Spalling of unprotected face of retaining wall at monolith joint. (M) 2016-0128 : 40+00 : Large vertical crack in retaining wall on the unprotected side. (M) 2016-0130 : 40+00 : Spalling and cracking of unprotected face of retaining wall near culvert and monolith joint. (M) 2016-0133 : 40+00 : Large horizontal crack leading to vertical crack on unprotected side. (U) 2016-0134 : 40+00 : Spalling of retaining wall on protected side. (U) 2016-0135 : 40+00 : Large vertical crack in retaining wall on the unprotected side. Cannot confirm in 2022 inspection due to vegetation. (M) 2016-0136 : 40+00 : Cracking on top of retaining wall. (M) 2016-0139 : 40+00 : Large vertical crack in retaining wall on the unprotected side. (U) 2016-0140 : Older retaining wall with significant cracking and spalling. (U) 2016-0141 : Significant spalling and cracking on top of older raised retaining wall. (U) 2016-0142 : 40+00 : Spalling of unprotected face of retaining wall at the monolith joint causing holes. (U) 2016-0147 : 0+00C : Spalling of retaining wall at monolith joint. (U) |
| | | M | Spalling, scaling, and open cracking present, but the immediate integrity or performance of the structure is not threatened. Reinforcing steel may be exposed. Repairs/ sealing is necessary to prevent additional damage during periods of thawing and freezing. | |
| | | U | Surface deterioration or deep cracks present that may result in an unreliable structure. Any surface deterioration that exposes the sheet piling or lies adjacent to monolith joints may indicate underlying reinforcement corrosion and is unacceptable. | |
| | | N/A | There are no concrete items in the channel. | |

Flood Damage Reduction Channels: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of flood damage reduction channels

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|--|--------|-------------------|---|--|
| 6. Tilting, Sliding or Settlement of Concrete Structures | U | A | There are no significant areas of tilting, sliding, or settlement that would endanger the integrity of the structure. | 2016-0126 : 40+00 : Monolith of local retaining wall is tilting toward the unprotected side by 3 inches, but less than 2" from adjoining monolith. (M) 2016-0131 : 40+00 : A pair of retaining wall monoliths are tilting approximately 4 inches toward unprotected side, but less than 2" from adjoining monolith. (U) |
| | | M | There are areas of tilting, sliding, or settlement (either active or inactive) that need to be repaired. The maximum offset, either laterally or vertically, does not exceed 2 inches unless the movement can be shown to be no longer actively occurring. The integrity of the structure is not in danger. | |
| | | U | There are areas of tilting, sliding, or settlement (either active or inactive) that threaten the structure's integrity and performance. Any movement that has resulted in failure of the waterstop (possibly identified by daylight visible through the joint) is unacceptable. Differential movement of greater than 2 inches between any two adjacent monoliths, either laterally or vertically, is unacceptable unless it can be shown that the movement is no longer active. Also, if the floodwall is of I-wall construction, then any visible or measurable tilting of the wall toward the protected side that has created an open horizontal crack on the riverside base of a monolith is unacceptable. | |
| | | N/A | There are no concrete items in the channel. | |
| 7. Foundation of Concrete Structures | M | A | No active erosion, scouring, or bank caving that might endanger the structure's stability. | 2016-0125 : 40+00 : Several newly drilled weepholes at base of retaining wall. (M) |
| | | M | There are areas where the ground is eroding towards the base of the structure. Efforts need to be taken to slow and repair this erosion, but it is not judged to be close enough to the structure or to be progressing rapidly enough to affect structural stability before the next inspection. For the purposes of inspection, the erosion or scour is not closer to the riverside face of the wall than twice the floodwall's underground base width if the wall is of L-wall or T-wall construction; or if the wall is of sheetpile or I-wall construction, the erosion is not closer than twice the wall's visible height. Additionally, rate of erosion is such that the wall is expected to remain stable until the next inspection. | |
| | | U | Erosion or bank caving observed that is closer to the wall than the limits described above, or is outside these limits but may lead to structural instabilities before the next inspection. Additionally, if the floodwall is of I-wall or sheetpile construction, the foundation is unacceptable if any turf, soil or pavement material got washed away from the landside of the I-wall as the result of a previous overtopping event. | |
| | | N/A | There are no concrete items in the channel. | |

Flood Damage Reduction Channels: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of flood damage reduction channels

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|--|--------|-------------------|--|--|
| 8. Slab and Monolith Joints | NA | A | The joint material is in good condition. The exterior joint sealant is intact and cracking/ desiccation is minimal. Joint filler material and/or waterstop is not visible at any point. | |
| | | M | The joint material has appreciable deterioration to the point where joint filler material and/or waterstop is visible in some locations. This needs to be repaired or replaced to prevent spalling and cracking during freeze/ thaw cycles, and to ensure water tightness of the joint. | |
| | | U | The joint material is severely deteriorated or the concrete adjacent to the monolith joints has spalled and cracked, damaging the waterstop; in either case damage has occurred to the point where it is apparent that the joint is no longer watertight and will not provide the intended level of protection during a flood. | |
| | | N/A | There are no concrete items in the channel. | |
| 9. Flap Gates/ Flap Valves/ Pinch Valves | NA | A | Gates/ valves open and close easily with minimal leakage, have no corrosion damage, and have been exercised and lubricated as required. | |
| | | M | Gates/ valves will not fully open or close because of obstructions that can be easily removed, or have minor corrosion damage that requires maintenance. | |
| | | U | Gates/ valves are missing, have been damaged, or have deteriorated to the point that they need to be replaced. | |
| | | N/A | There are no flap gates. | |
| 10. Riprap Revetments & Banks | M | A | No riprap displacement or stone degradation that could pose an immediate threat to the integrity of channel bank. Riprap intact with no woody vegetation present. | 2016-0113 : 30+00 : There appears to be a depression in riprap. Cannot confirm in 2022 inspection due to vegetation. (M) |
| | | M | Minor riprap displacement or stone degradation that could pose an immediate threat to the integrity of the channel bank. Unwanted vegetation must be cleared or sprayed with an appropriate herbicide. | |
| | | U | Significant riprap displacement, exposure of bedding, or stone degradation observed. Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Rock protection is hidden by dense brush, trees, or grasses. | |
| | | N/A | There is no riprap protecting this feature of the segment / system, or riprap is discussed in another section. | |

Flood Damage Reduction Channels: Bennington, Roaring Branch Left Bank
For use during Initial and Continuing Eligibility Inspections of flood damage reduction channels

| Rated Item | Rating | Rating Guidelines | | Location/Remarks/Recommendations |
|----------------------------------|--------|-------------------|---|----------------------------------|
| 11. Revetments other than Riprap | NA | A | Existing revetment protection is properly maintained, undamaged, and clearly visible. | |
| | | M | Minor revetment displacement or deterioration that does not pose an immediate threat to the integrity of the levee. Unwanted vegetation must be cleared or sprayed with an appropriate herbicide. | |
| | | U | Significant revetment displacement, deterioration, or exposure of bedding observed. Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Revetment protection is hidden by dense brush and trees. | |
| | | N/A | There are no such revetments protecting this feature of the segment / system. | |

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0002 Title: _2_20220607T124836.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Rating: Minimally Acceptable; Remarks: Large tree at beginning of the levee.; Action: Monitor tree and how it may affect the levee.</p> |
|  | <p>Inspect ID: 2016-0005 Title: _2_20220607T125136.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Rating: Minimally Acceptable; Remarks: Tree on levee at new school entrance.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0012 Title: _2_20220607T131052.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Rating: Minimally Acceptable; Large tree near crown of levee near ponding area. Tree was planted as part of the project.; Action: Monitor tree and how it may affect the levee.</p> |
|  | <p>Inspect ID: 2016-0037 Title: 4504000006_CENAN_2022_B_0037_2_20220615T190959.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Rating: Minimally Acceptable; Remarks: Vegetation on riprap west of pump station along toe of unprotected levee slope.; Action: Maintain vegetation in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0063 Title: _2_20220607T135602.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Rating: Unacceptable; Remarks: Line of brush and trees located on levee toe and toe drain on the protected side.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0089 Title: _2_20220607T143348.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Rating: Minimally Acceptable; Remarks: Several trees encroaching levee and levee toe drain.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0095 Title: 4504000006_CENAN_2022_B_0095_2_20220615T192448.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Rating: Minimally Acceptable; Remarks: Trees encroached on the toe of protected side of levee slope.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0096 Title: _2_20220607T145104.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Rating: Minimally Acceptable; Remarks: 8 inch tree stump on unprotected levee slope. Stump appears to be decomposing.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0097 Title: 4504000006_CENAN_2022_B_0097_2_20220615T193042.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Rating: Minimally Acceptable; Remarks: 8-inch diam. tree stump located on unprotected side of levee near levee crown. This section was widened. Cannot confirm in 2022 inspection due to vegetation; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0153 Title: _4_20220607T164214.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Rating: Minimally Acceptable; Remarks: Vegetation on the levee crown at DS #4.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |


Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0155 Title: _4_20220607T164844.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Rating: Unacceptable; Remarks: Upstream station of DS #4, numerous trees within 15' of the protected side toe of the levee that range from 2-inch to 20-inch diameter.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0004 Title: _2_20220607T125044.jpg Rated Item: 2. Sod Cover Caption: Rating: Minimally Acceptable; Remarks: Poor sod cover where new school entrance crosses levee.; Action: The crown of the levee from the original school entrance to the pump station was to be a 12" gravel access to the station 10 ft wide. This access must be restored.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0004 Title: 4504000006_CENAN_2022_B_0004_3_20220621T173629.jpg Rated Item: 2. Sod Cover Caption: Rating: Minimally Acceptable; Remarks: Poor sod cover where new school entrance crosses levee.; Action: The crown of the levee from the original school entrance to the pump station was to be a 12" gravel access to the station 10 ft wide. This access must be restored.</p> |
|  | <p>Inspect ID: 2016-0045 Title: 4504000006_CENAN_2022_B_0045_2_20220621T173536.jpg Rated Item: 2. Sod Cover Caption: Rating: Minimally Acceptable; Remarks: Pedestrian traffic has resulted in loss of sod cover on levee crown.; Action: Restore sod cover or provide a walking surface to limit erosion.; Inspector Comments:</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0075 Title: 4504000006_CENAN_2022_B_0075_3_20220615T194522.jpg Rated Item: 2. Sod Cover Caption: Rating: Minimally Acceptable; Remarks: Pervious toe drain material surfacing through sod cover at levee toe protected side. Cannot confirm in 2022 inspection due to vegetation. Action: NY district should review this observation with respect to the current USACE policy on the type of cover for pervious toe drains.</p> |
|  | <p>Inspect ID: 2016-0075 Title: 4504000006_CENAN_2022_B_0075_2_20220615T194839.jpg Rated Item: 2. Sod Cover Caption: Rating: Minimally Acceptable; Remarks: Pervious toe drain material surfacing through sod cover at levee toe protected side. Cannot confirm in 2022 inspection due to vegetation. Action: NY district should review this observation with respect to the current USACE policy on the type of cover for pervious toe drains.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0088 Title: 4504000006_CENAN_2022_B_0088_2_20220621T194239.jpg Rated Item: 2. Sod Cover Caption: Rating: Minimally Acceptable; Remarks: Footpath forming on riverside slope for river access.; Action: Reestablish sod cover</p> |
|  | <p>Inspect ID: 2016-0151 Title: _2_20220607T164108.jpg Rated Item: 2. Sod Cover Caption: Rating: Minimally Acceptable; Remarks: End of levee near DS#4 over grown with weeds.; Action: Clear and restore sod cover.</p> |


Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0001 Title: _3_20220607T124757.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Utility pole, street sign, streetlight and guy wires at start of levee. School driveway was constructed through the levee.; Action: Survey project boundary and determine if encroachments is permissible. Documentation of the review/approval of the Mt. Anthony Union High School Site Plan needs to be added to the project archives.</p> |
|  | <p>Inspect ID: 2016-0003 Title: 4504000006_CENAN_2022_B_0003_2_20220621T193313.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Multiple tree roots protruding from unprotected levee slope, next to new school driveway.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0006 Title: _2_20220607T125333.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Road signs and telephone poles at levee toe unprotected side. ; Action: There are no known authorization for this encroachment. The local sponsor should be asked to either remove it, or seek authorization for it to remain.</p> |
|  | <p>Inspect ID: 2016-0007 Title: _2_20220607T125210.jpg Rated Item: 3. Encroachments Caption: Rating: Unacceptable; Remarks: New driveway to school was cut into levee embankment resulting in a reduced elevation of protection.; Action: Restore levee and seek authorization.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0044 Title: _3_20220607T132421.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Large metal sign on landside levee slope.; Action: There are no known authorization for this encroachment. The local sponsor should be asked to either remove it, or seek authorization for it to remain.</p> |
|  | <p>Inspect ID: 2016-0079 Title: 4504000006_CENAN_2022_B_0079_2_20220621T193940.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Footpath running from fence to levee crown.; Action: The local sponsor take actions to minimize the impact of pedestrian trespass on the levee.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0080 Title: _2_20220607T142357.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Gravel ramp running up unprotected side of levee and crown.; Action: There are no known authorization for this encroachment. The local sponsor should be asked to either remove it, or seek authorization for it to remain.</p> |
|  | <p>Inspect ID: 2016-0099 Title: _5_20220607T145656.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Levee was widened on the riverside from the project cross section. Area of vegetation and possible settlement is located on the riverside of original levee slope.; Action: There are no known authorization for this encroachment. The local sponsor should be asked to either remove it, or seek authorization for it to remain.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0100 Title: 4504000006_CENAN_2022_B_0100_3_20220621T194554.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Large trail leading to levee.; Action: The local sponsor take actions to minimize the impact of pedestrian trespass on the levee.</p> |
|  | <p>Inspect ID: 2016-0101 Title: _2_20220607T150150.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Vehicle ramp on levee. "No vehicles" sign posted by road entrance to levee. Blocked by rope. Sign and rope were torn down at the time of 2022 inspection.; Action: The local sponsor take actions to minimize the impact of vehicular trespass on the levee.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0158 Title: _2_20220607T164557.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Gravel ramp leading to levee not on project plans.; Action: There are no known authorization for this encroachment. The local sponsor should be asked to either remove it, or seek authorization for it to remain.</p> |
|  | <p>Inspect ID: 2016-0159 Title: _2_20220607T164629.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Wooden garden fence posts at levee tie in; Action: Survey project boundary and determine if encroachment is permissible.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0160 Title: _2_20220607T164733.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: The levee ties into the existing ground at a private dwelling. Landscaping including a stone wheel appear to be on the levee.; Action: There are no known authorization for this encroachment. The local sponsor should be asked to either remove it, or seek authorization for it to remain.</p> |
|  | <p>Inspect ID: 2016-0160 Title: _3_20220607T164748.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: The levee ties into the existing ground at a private dwelling. Landscaping including a stone wheel appear to be on the levee.; Action: There are no known authorization for this encroachment. The local sponsor should be asked to either remove it, or seek authorization for it to remain.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2022-0001 Title: _1_20220607T125719.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Temporary shed from school on levee crown near school driveway.; Action: Verify authorization for sheds or remove.</p> |
|  | <p>Inspect ID: 2022-0003 Title: _1_20220607T143557.jpg Rated Item: 3. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Monitoring well on levee crest.; Action: There are no known authorization for this encroachment. The local sponsor should be asked to either remove it, or seek authorization for it to remain.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0057 Title: _1_20220607T134344.jpg Rated Item: 5. Slope Stability Caption: Rating: Minimally Acceptable; Remarks: Levee slope appears to be sliding on unprotected side. Levee irregularity appears to be a localized bearing failure of the crown due to vehicle loads.; Action: Re-establish line and grade of the embankment, and provide erosion protection in accordance with USACE guidelines. The local sponsor should take actions to minimize the impact of vehicular trespass on the levee.</p> |
|  | <p>Inspect ID: 2016-0060 Title: 4504000006_CENAN_2022_B_0060_2_20220616T112141.jpg Rated Item: 5. Slope Stability Caption: Rating: Minimally Acceptable; Remarks: Multiple depressions in levee slope on protected side.; Action: Provide topsoil, seed and mulch in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0038 Title: 4504000006_CENAN_2022_B_0038_2_20220616T112303.jpg Rated Item: 6. Erosion/ Bank Caving Caption: Rating: Minimally Acceptable; Remarks: Erosion and lack of sod cover at pump station due to the local citizens and students walking and riding bikes past the pumping station from the north.; Action: Re-establish line and grade of the embankment, and provide erosion protection in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0048 Title: _2_20220607T133103.jpg Rated Item: 6. Erosion/ Bank Caving Caption: Rating: Minimally Acceptable; Remarks: 5-ft wide depression on unprotected embankment near riprap. Action: Re-establish line and grade of the embankment, and provide erosion protection in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0051 Title: _1_20220607T140408.jpg Rated Item: 7. Settlement Caption: Rating: Unacceptable; Remarks: USACE survey data indicates the elevation of the levee to be approximately 1 to 2 ft lower than the as-built drawings, and up to 2.7 ft at STA 11+90.; Action: Review survey data and verify crown elevation in this area. Re-establish line and grade of the levee as needed in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0051 Title: _2_20220607T140417.jpg Rated Item: 7. Settlement Caption: Rating: Unacceptable; Remarks: USACE survey data indicates the elevation of the levee to be approximately 1 to 2 ft lower than the as-built drawings, and up to 2.7 ft at STA 11+90.; Action: Review survey data and verify crown elevation in this area. Re-establish line and grade of the levee as needed in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0157 Title: 4504000006_CENAN_2022_B_0157_2_20220616T112751.jpg Rated Item: 7. Settlement Caption: Rating: Unacceptable; Remarks: USACE survey data indicates the elevation of the levee to be approximately 2.7 ft lower than the elevation shown on the as-built drawings.; Action: Re-establish line & grade of the levee as needed, in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0161 Title: 4504000006_CENAN_2022_B_0161_2_20220616T112903.jpg Rated Item: 7. Settlement Caption: Rating: Minimally Acceptable; Remarks: Gap exists between end of concrete I-Wall and SSP cutoff wall. Significant vegetation surrounding area.; Action: Backfill to as-built grades.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0011 Title: _2_20220607T130937.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: A small deep depression on levee crown is approximately 2' wide by 1' deep.; Action: Provide topsoil, seed and mulch in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0039 Title: _2_20220607T132004.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: A footpath leading up the levee has formed a rut.; Action: Provide topsoil, seed and mulch in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0050 Title: _1_20220607T133450.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: Minor depression of crown, forms a low point.; Action: Provide topsoil, seed and mulch in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0053 Title: 4504000006_CENAN_2022_B_0053_2_20220616T115458.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: Small depression running down levee slope on protected side. Cannot confirm in 2022 inspection due to vegetation.; Action: Provide topsoil, seed and mulch in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0056 Title: _2_20220607T134456.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: Foot path has made a depression running up levee slope on protected side.; Action: The local sponsor should inform the school of the project boundary and act to minimize the impact of pedestrian trespass on the levee. Provide topsoil, seed and mulch in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0058 Title: 4504000006_CENAN_2022_B_0058_2_20220616T115653.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: Rutting on toe of levee on protected side. Cannot confirm in 2022 inspection due to vegetation.; Action: Provide topsoil, seed and mulch in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0062 Title: _2_20220607T135509.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: Large hole in unprotected side filled with rocks. Cannot confirm in 2022 inspection due to vegetation.; Action: Re-establish line and grade of the embankment, and provide erosion protection in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0065 Title: _2_20220607T135948.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: Depression in levee slope on protected side. Levee slope is irregular and is typical conditions.; Action: Provide topsoil, seed and mulch in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0074 Title: 4504000006_CENAN_2022_B_0074_1_20220616T120036.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: Rutting at toe of levee on protected side. Cannot confirm in 2022 inspection due to vegetation.; Action: Provide topsoil, seed and mulch in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0076 Title: 4504000006_CENAN_2022_B_0076_1_20220616T120157.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: Depression on levee toe protected side. Cannot confirm in 2022 inspection due to vegetation. This photo was taken in 2016.; Action: Provide topsoil, seed and mulch in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0078 Title: _2_20220607T142115.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: Footpath on unprotected side of levee has formed a rut.; Action: The local sponsor take actions to minimize the impact of pedestrian trespass on the levee. Provide topsoil, seed and mulch in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0085 Title: _3_20220607T142831.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: Depression in levee crown extends from gravel ramp to power sub-station.; Action: Review survey data and verify crown elevation in this area. Re-establish line and grade of the levee as needed in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0094 Title: 4504000006_CENAN_2022_B_0094_2_20220616T120449.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: Rutting and/or sliding of levee toe landside. Cannot confirm in 2022 inspection due to vegetation.; Action: Regrade and restore sod cover.</p> |
|  | <p>Inspect ID: 2016-0098 Title: _2_20220607T145507.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: Rutting at levee toe protected side.; Action: The local sponsor take actions to minimize the impact of vehicular trespass on the levee.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0103 Title: _2_20220607T150619.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: Elevation of the levee at the tie-in with the floodwall appears to be low as the sheet pile is exposed. ; Action: Review survey data and verify crown elevation in this area. Re-establish line and grade of the levee as needed in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0154 Title: 4504000006_CENAN_2022_B_0154_2_20220616T120745.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: Levee crown is rounding and slopes toward the unprotected side of the levee.; Action: Re-establish line and grade of the levee as needed in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0156 Title: _2_20220607T164500.jpg Rated Item: 8. Depressions/ Rutting Caption: Rating: Minimally Acceptable; Remarks: A small depression on the levee crown.; Action: Review survey data and verify crown elevation in this area. Re-establish line and grade of the levee as needed in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0035 Title: 4504000006_CENAN_2022_B_0035_3_20220616T121415.jpg Rated Item: 10. Animal Control Caption: Rating: Minimally Acceptable; Remarks: Animal burrow at wingwall of pump station. Cannot confirm in 2022 inspection due to vegetation.; Action: Fill burrow in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0036 Title: 4504000006_CENAN_2022_B_0036_2_20220616T121514.jpg Rated Item: 10. Animal Control Caption: Rating: Minimally Acceptable; Remarks: 8" by 3' deep animal burrow near top of crown adjacent to pump station. Cannot confirm in 2022 inspection due to vegetation.; Action: Fill burrow.</p> |
|  | <p>Inspect ID: 2016-0054 Title: 4504000006_CENAN_2022_B_0054_2_20220616T121806.jpg Rated Item: 10. Animal Control Caption: Rating: Minimally Acceptable; Remarks: Animal burrow on protected side of levee slope by ponding area. 3.5' by 6" diameter. Cannot confirm in 2022 inspection due to vegetation.; Action: Fill burrow in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0152 Title: 4504000006_CENAN_2022_B_0152_1_20220616T122613.jpg Rated Item: 10. Animal Control Caption: Rating: Minimally Acceptable; Remarks: Noted previously a deep borrow hole located on top of DS #4. Cannot confirm in 2022 inspection due to vegetation.; Action: Fill burrow in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2022-0002 Title: _1_20220607T130527.jpg Rated Item: 10. Animal Control Caption: Rating: Minimally Acceptable; Remarks: Multiple animal burrows on protected side slope.; Action: Fill in burrows in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2022-0002 Title: 4504000006_CENAN_2022_B_0002_2_20220607T130604.jpg Rated Item: 10. Animal Control Caption: Rating: Minimally Acceptable; Remarks: Multiple animal burrows on protected side slope.; Action: Fill in burrows in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2022-0002 Title: _3_20220607T131122.jpg Rated Item: 10. Animal Control Caption: Rating: Minimally Acceptable; Remarks: Multiple animal burrows on protected side slope.; Action: Fill in burrows in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0104 Title: _1_20220607T150416.jpg Rated Item: 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) Caption: Rating: Unacceptable; Remarks: The culvert to D.S. # 3 contains small cobbles, pipe sections seem to be offset, and there appears to be a belly in the pipe. The 11 Nov 2014 video inspection report notes a circumferential fracture at 13.1 ft, however the video shows more damage. Vegetation surrounding structure in 2022 inspection.</p> |
|  | <p>Inspect ID: 2022-0163 Title: 4504000006_CENAN_2022_B_0163_1_20220630T164953.jpg Rated Item: 12. Riprap Revetments & Bank Protection Caption: Rating: Minimally Acceptable; Remarks: There was significant vines and start of small trees on riprap. Highly recommend that the city begin a vegetation spray control plan to keep this under control. Once this becomes established it is significantly more costly to get back under control.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2022-0163 Title: 4504000006_CENAN_2022_B_0163_2_20220630T165005.jpg</p> <p>Rated Item: 12. Riprap Revetments & Bank Protection</p> <p>Caption: Rating: Minimally Acceptable; Remarks: There was significant vines and start of small trees on riprap. Highly recommend that the city begin a vegetation spray control plan to keep this under control. Once this becomes established it is significantly more costly to get back under control.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0059 Title: _2_20220607T135032.jpg</p> <p>Rated Item: 14. Underseepage Relief Wells/ Toe Drainage Systems</p> <p>Caption: Rating: Unacceptable; Remarks: New school parking lot runs up against the levee toe drain, and interior drainage ditch. Drainage ditch is constructed from pervious material and is now sod covered - determine if this is an appropriate cover.; Action: The toe drain system should be inspected with a video camera to determine if construction of the school parking caused any damage to the 18-in porous pipe of the system. The local sponsor should inform the school of the project boundary and protect it.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0105 Title: 4504000006_CENAN_2022_B_0105_2_20220622T135951.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Rating: Minimally Acceptable; Remarks: Unwanted vegetation growth on both protected and unprotected side of floodwall. Vegetation hinders inspection of floodwalls in 2022. ; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0110 Title: _1_20220607T152833.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Rating: Minimally Acceptable; Remarks: Large tree stump 3-ft diam. located within 15-ft of floodwall. Cannot confirm in 2022 inspection due to vegetation.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |


Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2022-0007 Title: _1_20220607T163433.jpg Rated Item: 1. Unwanted Vegetation Growth Caption: Rating: Minimally Acceptable; Remarks: Large tree root 3' from wall.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0109 Title: _3_20220607T152238.jpg Rated Item: 2. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Debris obstructing access to floodwall protected side.; Action: The local sponsor should inform the property owner of the project boundary and have them remove their items from the project area.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0111 Title: _2_20220607T153628.jpg Rated Item: 2. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Vegetation and yard debris within 15-ft of local floodwall. ; Action: Maintain vegetation free zone in accordance with USACE guidelines. Survey project boundary and determine if encroachment is permissible.</p> |
|  | <p>Inspect ID: 2016-0117 Title: _2_20220607T154044.jpg Rated Item: 2. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Vegetation, yard debris, and a metal fence within 15-ft of local floodwall.; Action: Maintain vegetation free zone in accordance with USACE guidelines. Survey project boundary and determine if encroachment is permissible.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0119 Title: _2_20220607T154257.jpg Rated Item: 2. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Trailer and garage against local floodwall protected side. 2022: Trailer is gone. Garage still remains.; Action: Survey project boundary and determine if encroachment is permissible.</p> |
|  | <p>Inspect ID: 2016-0107 Title: _2_20220607T151008.jpg Rated Item: 4. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: Minor cracking on end of concrete floodwall (where floodway ties into levee embankment). Crack is a reflection of sheeting.; Action: Repair concrete surfaces in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0112 Title: 4504000006_CENAN_2022_B_0112_2_20220616T125753.jpg Rated Item: 4. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: Vertical crack in local floodwall on protected side. Cannot confirm in 2022 inspection due to vegetation.; Action: Repair concrete surfaces in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0114 Title: 4504000006_CENAN_2022_B_0114_2_20220616T125901.jpg Rated Item: 4. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: Surface defects on the protected face of the local floodwall.; Action: The local sponsor should make provisions to protect the project features.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0115 Title: _2_20220607T153250.jpg Rated Item: 4. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: A hole in the local retaining wall was not patched after the tie holding the forms was removed.; Action: Repair concrete surfaces in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0116 Title: 4504000006_CENAN_2022_B_0116_2_20220622T140738.jpg Rated Item: 4. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: A pair of vertical cracks with efflorescence near the monolith joint.; Action: Repair concrete surfaces in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0118 Title: _3_20220607T154157.jpg Rated Item: 4. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: Horizontal cracking on both protected and unprotected faces of local floodwall with efflorescence.; Action: Repair concrete surfaces in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0118 Title: 4504000006_CENAN_2022_B_0118_2_20220622T141025.jpg Rated Item: 4. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: Horizontal cracking on both protected and unprotected faces of local floodwall with efflorescence.; Action: Repair concrete surfaces in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0120 Title: _1_20220607T154410.jpg Rated Item: 4. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: Spalling of local floodwall at monolith joint on unprotected side.; Action: Repair concrete surfaces in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0121 Title: _5_20220607T154455.jpg Rated Item: 4. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: Concrete spalling along top of local floodwall, exposed reinforcement.; Action: Repair concrete surfaces in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0123 Title: _3_20220607T155244.jpg Rated Item: 4. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: Vertical crack extending height of wall near bridge abutment.; Action: Repair concrete surfaces.</p> |
|  | <p>Inspect ID: 2016-0124 Title: _3_20220607T155744.jpg Rated Item: 4. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: 6" by 6" spall at bridge abutment joint upstream.; Action: Repair concrete surface.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0137 Title: _2_20220607T162139.jpg Rated Item: 4. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: Cracking and spalling of retaining wall on protected side.; Action: Repair concrete surfaces in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0108 Title: _7_20220607T152557.jpg Rated Item: 5. Tilting, Sliding or Settlement of Concrete Structures Caption: Rating: Minimally Acceptable; Remarks: Noted in the previous inspection, 2-inch joint separation between floodwall and abutment. The joint between monolith #6 and the local floodwall has displacement 1-5/8-in. The monolith also tips slightly to the unprotected side. Cannot confirm in 2022 inspection due to vegetation.; Action: The O&M manual should be revised to include the monitoring of the displacements of the floodwall concrete monoliths during normal and flood conditions.</p> |



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0108 Title: 4504000006_CENAN_2022_B_0108_2_20220616T133322.jpg</p> <p>Rated Item: 5. Tilting, Sliding or Settlement of Concrete Structures Caption: Rating: Minimally Acceptable; Remarks: Noted in the previous inspection, 2-inch joint separation between floodwall and abutment. The joint between monolith #6 and the local floodwall has displacement 1-5/8-in. The monolith also tips slightly to the unprotected side. Cannot confirm in 2022 inspection due to vegetation.; Action: The O&M manual should be revised to include the monitoring of the displacements of the floodwall concrete monoliths during normal and flood conditions.</p> |
|  | <p>Inspect ID: 2016-0108 Title: 4504000006_CENAN_2022_B_0108_3_20220616T133332.jpg</p> <p>Rated Item: 5. Tilting, Sliding or Settlement of Concrete Structures Caption: Rating: Minimally Acceptable; Remarks: Noted in the previous inspection, 2-inch joint separation between floodwall and abutment. The joint between monolith #6 and the local floodwall has displacement 1-5/8-in. The monolith also tips slightly to the unprotected side. Cannot confirm in 2022 inspection due to vegetation.; Action: The O&M manual should be revised to include the monitoring of the displacements of the floodwall concrete monoliths during normal and flood conditions.</p> |



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|  | <p>Inspect ID: 2016-0108 Title: 4504000006_CENAN_2022_B_0108_4_20220616T133341.jpg</p> <p>Rated Item: 5. Tilting, Sliding or Settlement of Concrete Structures Caption: Rating: Minimally Acceptable; Remarks: Noted in the previous inspection, 2-inch joint separation between floodwall and abutment. The joint between monolith #6 and the local floodwall has displacement 1-5/8-in. The monolith also tips slightly to the unprotected side. Cannot confirm in 2022 inspection due to vegetation.; Action: The O&M manual should be revised to include the monitoring of the displacements of the floodwall concrete monoliths during normal and flood conditions.</p> |
|  | <p>Inspect ID: 2016-0108 Title: 4504000006_CENAN_2022_B_0108_5_20220616T133348.jpg</p> <p>Rated Item: 5. Tilting, Sliding or Settlement of Concrete Structures Caption: Rating: Minimally Acceptable; Remarks: Noted in the previous inspection, 2-inch joint separation between floodwall and abutment. The joint between monolith #6 and the local floodwall has displacement 1-5/8-in. The monolith also tips slightly to the unprotected side. Cannot confirm in 2022 inspection due to vegetation.; Action: The O&M manual should be revised to include the monitoring of the displacements of the floodwall concrete monoliths during normal and flood conditions.</p> |

Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0149 Title: _2_20220607T163824.jpg Rated Item: 5. Tilting, Sliding or Settlement of Concrete Structures Caption: Rating: Minimally Acceptable; Remarks: 1/2-inch vertical displacement at monolith joint between monoliths 7 & 8.; Action: The O&M manual should be revised to include the monitoring of the displacements of the floodwall concrete monoliths during normal and flood conditions.</p> |
|  | <p>Inspect ID: 2022-0005 Title: _1_20220607T160444.jpg Rated Item: 5. Tilting, Sliding or Settlement of Concrete Structures Caption: Rating: Minimally Acceptable; Remarks: Concrete at joint between monoliths severely degraded. Large (18") piece of concrete loosely hanging off water side of floodwall. Severe cracking on top of the floodwall at the joint.; Action: The O&M manual should be revised to include the monitoring of the displacements of the floodwall concrete monoliths during normal and flood conditions.</p> |



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2022-0005 Title: _2_20220607T160546.jpg Rated Item: 5. Tilting, Sliding or Settlement of Concrete Structures Caption: Rating: Minimally Acceptable; Remarks: Concrete at joint between monoliths severely degraded. Large (18") piece of concrete loosely hanging off water side of floodwall. Severe cracking on top of the floodwall at the joint.; Action: The O&M manual should be revised to include the monitoring of the displacements of the floodwall concrete monoliths during normal and flood conditions.</p> |
|  | <p>Inspect ID: 2016-0129 Title: _3_20220607T160020.jpg Rated Item: 7. Monolith Joints Caption: Rating: Minimally Acceptable; Remarks: Monolith joint offset of 3/4 inch. Water Stop is broken.; Action: Monitor joint displacement.</p> |



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0148 Title: _4_20220607T163725.jpg Rated Item: 7. Monolith Joints Caption: Rating: Minimally Acceptable; Remarks: Separation at monolith joint where local retaining wall meets floodwall monolith #7.; Action: The O&M manual should be revised to include the monitoring of the displacements of the floodwall concrete monoliths during normal and flood conditions.</p> |
|  | <p>Inspect ID: 2022-0006 Title: _1_20220607T161448.jpg Rated Item: 9. Seepage Caption: Rating: Minimally Acceptable; Remarks: Small rodent hole about one foot deep and 3 inches in diameter behind floodwall.; Action: Fill burrow in accordance with USACE guidelines and monitor area for seepage.</p> |



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0070 Title: 4504000006_CENAN_2022_B_0070_2_20220622T142530.jpg Rated Item: 1. Vegetation and Obstructions Caption: Rating: Minimally Acceptable; Remarks: Drainage ditch is partially filled.; Action: Restore the interior drainage swale in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0145 Title: _3_20220607T163022.jpg Rated Item: 1. Vegetation and Obstructions Caption: Rating: Minimally Acceptable; Remarks: It was noted previously that the drainage ditch leading from DS #4 was filled in by riprap. The path for the discharge from DS #4 appears to slope upward for some distance.; Action: Re-establish line and grade of the drainage ditch, and provide erosion protection in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0145 Title: _4_20220607T163035.jpg Rated Item: 1. Vegetation and Obstructions Caption: Rating: Minimally Acceptable; Remarks: It was noted previously that the drainage ditch leading from DS #4 was filled in by riprap. The path for the discharge from DS #4 appears to slope upward for some distance.; Action: Re-establish line and grade of the drainage ditch, and provide erosion protection in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0150 Title: _5_20220607T163930.jpg Rated Item: 1. Vegetation and Obstructions Caption: Rating: Unacceptable; Remarks: DS #4 debris and vegetation in front of structure. Most of the vegetation has been cut, but some remains. Outfall looks clear and flapgate closes. Intake is covered with leaves and debris. Inlet could not be found.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0008 Title: 4504000006_CENAN_2022_B_0008_3_20220622T142742.jpg</p> <p>Rated Item: 2. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Two HDPE stormwater drains enter ponding area and are not shown on the project plans.; Action: Documentation of the review/approval of the Mt. Anthony Union High School Site Plan needs to be added to the project archives. Consider providing an appropriately sized drainage swale to connect the new site drainage to the ponding area.</p> |
|  | <p>Inspect ID: 2016-0009 Title: 4504000006_CENAN_2022_B_0009_4_20220622T143103.jpg</p> <p>Rated Item: 2. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Changes at the school includes a parking lot adjacent to the ponding area and removal of the perimeter fence. There is dirt access, construction equipment, and debris in the ponding area.; Action: Documentation of the review/approval of the Mt. Anthony Union High School Site Plan needs to be added to the project archives. The local sponsor should remove non-project items from the ponding area.</p> |



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0032 Title: 4504000006_CENAN_2022_B_0032_4_20220622T143222.jpg Rated Item: 2. Encroachments Caption: Rating: Minimally Acceptable; Remarks: 15-inch HDPE at pumping station outlet not on project plans.; Action: There are no known authorization for this encroachment. The local sponsor should be asked to either remove it, or seek authorization for it to remain.</p> |
|  | <p>Inspect ID: 2016-0032 Title: 4504000006_CENAN_2022_B_0032_2_20220622T143429.jpg Rated Item: 2. Encroachments Caption: Rating: Minimally Acceptable; Remarks: 15-inch HDPE at pumping station outlet not on project plans.; Action: There are no known authorization for this encroachment. The local sponsor should be asked to either remove it, or seek authorization for it to remain.</p> |


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|  | <p>Inspect ID: 2016-0032 Title: 4504000006_CENAN_2022_B_0032_3_20220622T143434.jpg</p> <p>Rated Item: 2. Encroachments Caption: Rating: Minimally Acceptable; Remarks: 15-inch HDPE at pumping station outlet not on project plans.; Action: There are no known authorization for this encroachment. The local sponsor should be asked to either remove it, or seek authorization for it to remain.</p> |
|  | <p>Inspect ID: 2016-0064 Title: 4504000006_CENAN_2022_B_0064_2_20220622T143551.jpg</p> <p>Rated Item: 2. Encroachments Caption: Rating: Minimally Acceptable; Remarks: 4" PVC drainage pipe discharges into the drainage ditch is not shown on the project plans. Cannot locate in 2022 inspection due to vegetation.; Action: There are no known authorization for this encroachment. The local sponsor should be asked to either remove it, or seek authorization for it to remain.</p> |

Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0067 Title: _2_20220607T140048.jpg Rated Item: 2. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Asphalt driveway is approx. 16 feet from centerline of ditch.; Action: There are no known authorization for this encroachment. The local sponsor should be asked to either remove it, or seek authorization for it to remain.</p> |
|  | <p>Inspect ID: 2016-0071 Title: _2_20220607T140727.jpg Rated Item: 2. Encroachments Caption: Rating: Minimally Acceptable; Remarks: Wooden structure and garden 15 feet of drainage ditch/toe drain.; Action: There is no known authorization for this encroachment. The local sponsor should be asked to either remove it, or seek authorization for it to remain.</p> |

Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0046 Title: _3_20220607T132604.jpg Rated Item: 3. Ponding Areas Caption: Rating: Minimally Acceptable; Remarks: Ponding area appears to have been filled and leveled to accommodate a sports field.; Action: Survey current conditions to assess ponding area capacity.</p> |
|  | <p>Inspect ID: 2016-0031 Title: _2_20220606T185802.jpg Rated Item: 5. Concrete Surfaces (Such as gate wells, outfalls, intakes, or culverts) Caption: Rating: Minimally Acceptable; Remarks: Vertical crack in drainage structure of pumping station on backside.; Action: Repair concrete surfaces in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0034 Title: _2_20220606T185716.jpg Rated Item: 5. Concrete Surfaces (Such as gate wells, outfalls, intakes, or culverts) Caption: Rating: Minimally Acceptable; Remarks: Cracking with efflorescence on top of drainage structure at pumping station.; Action: Repair concrete surfaces in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0082 Title: _3_20220607T142010.jpg Rated Item: 9. Culverts/ Discharge Pipes Caption: Rating: Acceptable; Remarks: DS #2 drop inlet appears clean and functional.</p> |



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0106 Title: _3_20220607T145957.jpg Rated Item: 9. Culverts/ Discharge Pipes Caption: Rating: Acceptable; Remarks: DS #3 drop inlet appears clean and functional.</p> |
|  | <p>Inspect ID: 2016-0081 Title: _6_20220607T142517.jpg Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves Caption: Rating: Acceptable; Remarks: DS#2 outfall was reconstructed in 2012. concrete is in good condition except for 12" spall on top of floodwall. Flap gate operational and pipe is clear. Some sediment buildup and vegetation in drainage channel outlet of DS #2.; Action: Maintain vegetation in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0081 Title: 4504000006_CENAN_2022_B_0081_3_20220622T150226.jpg Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves Caption: Rating: Acceptable; Remarks: DS#2 outfall was reconstructed in 2012. concrete is in good condition except for 12" spall on top of floodwall. Flap gate operational and pipe is clear. Vegetation surrounding DS #2 and in drainage channel outlet.; Action: Maintain vegetation in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0102 Title: 4504000006_CENAN_2022_B_0102_2_20220616T184107.jpg Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves Caption: Rating: Minimally Acceptable; Remarks: Noted previously vegetation covering flap gate for D.S. #3. Structure is obscured greatly by vegetation and is becoming very overgrown. Flap gate still operates. Cannot confirm in 2022 inspection due to vegetation.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0102 Title: 4504000006_CENAN_2022_B_0102_2_20220622T150922.jpg Rated Item: 11. Flap Gates/ Flap Valves/ Pinch Valves Caption: Rating: Minimally Acceptable; Remarks: Noted previously vegetation covering flap gate for D.S. #3. Structure is obscured greatly by vegetation and is becoming very overgrown. Flap gate still operates. Cannot confirm in 2022 inspection due to vegetation.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0055 Title: _5_20220607T134623.jpg Rated Item: 14. Riprap Revetments of Inlet/ Discharge Areas Caption: Rating: Minimally Acceptable; Remarks: Erosion, scouring and undermining next to concrete toe drain outlet channel. The channel itself is spalling. The headwall also has spalling. Pipe was recently video inspected and cleaned. Minor vegetation in toe drain.; Action: Restore the scour in the area around the toe drain outlet, and repair concrete surfaces in accordance with USACE guidelines.</p> |

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|  | <p>Inspect ID: 2016-0055 Title: _6_20220607T134634.jpg Rated Item: 14. Riprap Revetments of Inlet/ Discharge Areas Caption: Rating: Minimally Acceptable; Remarks: Erosion, scouring and undermining next to concrete toe drain outlet channel. The channel itself is spalling. The headwall also has spalling. Pipe was recently video inspected and cleaned. Minor vegetation in toe drain.; Action: Restore the scour in the area around the toe drain outlet, and repair concrete surfaces in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0055 Title: _7_20220607T134643.jpg Rated Item: 14. Riprap Revetments of Inlet/ Discharge Areas Caption: Rating: Minimally Acceptable; Remarks: Erosion, scouring and undermining next to concrete toe drain outlet channel. The channel itself is spalling. The headwall also has spalling. Pipe was recently video inspected and cleaned. Minor vegetation in toe drain.; Action: Restore the scour in the area around the toe drain outlet, and repair concrete surfaces in accordance with USACE guidelines.</p> |

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Inspect ID: 2016-0014 **Title:** _3_20220606T183935.jpg

Rated Item: 1. Pump Stations Operating, Maintenance, Training, & Inspection Records **Caption:** Rating: Minimally Acceptable Remarks: The original O&M manual is used for training. The station is tested once a month. The staff noted that to their knowledge, the station has not been operated since 1983. A log is kept of the monthly testing. No training records are present. Action: Records of training should be kept at the pump station and updated regularly.





Inspect ID: 2016-0017 **Title:** _2_20220606T183844.jpg

Rated Item: 2. Pump Station Operations and Maintenance Equipment Manuals **Caption:** Rating: Minimally Acceptable; Remarks: A copy of the 1971 O&M manual was found at the pump station.; Action: O&M manual needs to be updated regularly

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|  | <p>Inspect ID: 2016-0015 Title: 4504000006_CENAN_2022_B_0015_2_20220622T151546.jpg</p> <p>Rated Item: 3. Safety Compliance Caption: Rating: Acceptable; Remarks: All the staff responsible for the station are certified treatment plant operators. Town safety team does inspections and the results are recorded. There have been no significant findings.</p> |
|  | <p>Inspect ID: 2016-0016 Title: 4504000006_CENAN_2022_B_0016_2_20220621T203029.jpg</p> <p>Rated Item: 4. Communications (A or M only) Caption: Rating: Minimally Acceptable; Remarks: Cellular phone and two-way radios are used. There is also an auto dialer that notifies the town on pump failure. 2022: Auto dialer has been disconnected. Action: Restore auto dialer to previous working condition</p> |

Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0013 Title: _4_20220606T184258.jpg Rated Item: 5. Plant Building Caption: Rating: Minimally Acceptable; Remarks: Spalling of the brick around the pump station building.; Action: Repair project surfaces in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0018 Title: _2_20220606T190448.jpg Rated Item: 5. Plant Building Caption: Plant Building; Rating: Acceptable; Remarks: There is an electric heater in the station that is operational and the roof was replaced in 2014. Action: NA</p> |

Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0040 Title: _3_20220606T185136.jpg Rated Item: 5. Plant Building Caption: Rating: Minimally Acceptable; Remarks: Spalling and cracking on front wingwall at pumping station doorway.; Action: Repair concrete surfaces in accordance with USACE guidelines.</p> |
|  | <p>Inspect ID: 2016-0041 Title: _2_20220606T190326.jpg Rated Item: 5. Plant Building Caption: Rating: Acceptable; Remarks: Pumping station locked, secure, and operational.</p> |

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Inspect ID: 2016-0019 **Title:** 4504000006_CENAN_2022_B_0019_2_20220622T152031.jpg
Rated Item: 6. Fencing and Gates **Caption:** Rating: Acceptable; Remarks: The pump station is not fenced or otherwise protected from intrusion. Staff noted that there had been incidents of vandalism in the past. There is no fence on the As-Built drawings.; Action: Consider improving the security of the pumping station.



Inspect ID: 2016-0020 **Title:** _2_20220606T184444.jpg
Rated Item: 7. Pumps **Caption:** Rating: Minimally Acceptable; Remarks: The pump station includes two(2) 30Hp vertical turbine pumps (5000 gpm at 13.5'TDH) and a 50 gpm sump pump for draining the wet well. All three were run briefly (no water in wet well) and ran without excessive noise and vibration. ; Action: Maintain pumps in accordance with USACE guidelines.



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0022 Title: 4504000006_CENAN_2022_B_0022_2_20220622T152608.jpg Rated Item: 11. Non-Mechanical Trash Racks Caption: Rating: Acceptable; Remarks: There are only manual trash racks which appear to be in good condition with one or two of the bars slightly bent.</p> |
|  | <p>Inspect ID: 2016-0026 Title: 4504000006_CENAN_2022_B_0026_2_20220622T153341.jpg Rated Item: 13. Power Source Caption: Rating: Minimally Acceptable; Remarks: There is no backup power (i.e., generator) at the pumping station; nor are there provisions for connecting a mobile generator. The pumping station does not presently have a main service disconnect (main circuit breaker or main fused disconnect switch).; Action: To increase reliability of the pumping station, a generator should be added, or provisions for connecting a mobile generator should be provided. It is recommended that a main service disconnect be provided. Photo taken from 2016.</p> |

Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0027 Title: _4_20220606T185313.jpg Rated Item: 14. Electrical Systems Caption: Rating: Minimally Acceptable; Remarks: There are no lights in the wetwell or on the building exterior. The receptacles are not GFI protected.; Action: Replace the wetwell and exterior building lighting. Replace the interior receptacles with GFI protected outlets.</p> |
|  | <p>Inspect ID: 2016-0027 Title: 4504000006_CENAN_2022_B_0027_5_20220622T153828.jpg Rated Item: 14. Electrical Systems Caption: Rating: Minimally Acceptable; Remarks: There are no lights in the wetwell or on the building exterior. The receptacles are not GFI protected.; Action: Replace the wetwell and exterior building lighting. Replace the interior receptacles with GFI protected outlets.</p> |

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Inspect ID: 2016-0027 **Title:** 4504000006_CENAN_2022_B_0027_6_20220622T153834.jpg
Rated Item: 14. Electrical Systems **Caption:** Rating: Minimally Acceptable; Remarks: There are no lights in the wetwell or on the building exterior. The receptacles are not GFI protected.; Action: Replace the wetwell and exterior building lighting. Replace the interior receptacles with GFI protected outlets.



Inspect ID: 2016-0027 **Title:** 4504000006_CENAN_2022_B_0027_7_20220622T153908.jpg
Rated Item: 14. Electrical Systems **Caption:** Rating: Minimally Acceptable; Remarks: There are no lights in the wetwell or on the building exterior. The receptacles are not GFI protected.; Action: Replace the wetwell and exterior building lighting. Replace the interior receptacles with GFI protected outlets.

Photos: Bennington, Roaring Branch Left Bank

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|  A photograph showing two white electrical enclosures mounted on a wall. The enclosures have yellow and black warning labels. There is some visible corrosion and staining on the wall and the enclosures themselves. | <p>Inspect ID: 2016-0029 Title: _3_20220606T184738.jpg Rated Item: 16. Enclosures, Panels, Conduit and Ducts Caption: Rating: Minimally Acceptable; Remarks: There is very minor visible corrosion on the electrical enclosures.; Action: Leave dehumidifier in operation, and paint corroded enclosures as needed.</p> |
|  A photograph showing a large, dark, cylindrical pipe or duct. The pipe is surrounded by a concrete structure. The pipe appears to be in good condition, with some minor rust visible on the metal flange. | <p>Inspect ID: 2016-0023 Title: 4504000006_CENAN_2022_B_0023_5_20220622T154705.jpg Rated Item: 17. Intake and Discharge Pipelines Caption: Rating: Acceptable; Remarks: There is no intake piping. The discharge piping is in good condition and was painted 10 years ago.</p> |



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0023 Title: 4504000006_CENAN_2022_B_0023_6_20220622T154725.jpg Rated Item: 17. Intake and Discharge Pipelines Caption: Rating: Acceptable; Remarks: There is no intake piping. The discharge piping is in good condition and was painted 10 years ago.</p> |
|  | <p>Inspect ID: 2016-0024 Title: 4504000006_CENAN_2022_B_0024_2_20220622T155120.jpg Rated Item: 18. Sluice/ Slide Gates Caption: Rating: Minimally Acceptable; Remarks: They are manual gates and the portable handle is kept in the pump station. They are greased regularly. The outlet gate could not be closed completely. There may be debris in the seat. The manual gate operators take a long time and many turns to close.; Action: Clear debris from outlet seat. Look into providing new operators in order to close and open the gates quicker.</p> |



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0024 Title: 4504000006_CENAN_2022_B_0024_3_20220622T155125.jpg</p> <p>Rated Item: 18. Sluice/ Slide Gates Caption: Rating: Minimally Acceptable; Remarks: They are manual gates and the portable handle is kept in the pump station. They are greased regularly. The outlet gate could not be closed completely. There may be debris in the seat. The manual gate operators take a long time and many turns to close.; Action: Clear debris from outlet seat. Look into providing new operators in order to close and open the gates quicker.</p> |
|  | <p>Inspect ID: 2016-0024 Title: 4504000006_CENAN_2022_B_0024_4_20220622T155131.jpg</p> <p>Rated Item: 18. Sluice/ Slide Gates Caption: Rating: Minimally Acceptable; Remarks: They are manual gates and the portable handle is kept in the pump station. They are greased regularly. The outlet gate could not be closed completely. There may be debris in the seat. The manual gate operators take a long time and many turns to close.; Action: Clear debris from outlet seat. Look into providing new operators in order to close and open the gates quicker.</p> |



Photos: Bennington, Roaring Branch Left Bank

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|  | <p>Inspect ID: 2016-0024 Title: 4504000006_CENAN_2022_B_0024_5_20220622T155136.jpg</p> <p>Rated Item: 18. Sluice/ Slide Gates Caption: Rating: Minimally Acceptable; Remarks: They are manual gates and the portable handle is kept in the pump station. They are greased regularly. The outlet gate could not be closed completely. There may be debris in the seat. The manual gate operators take a long time and many turns to close.; Action: Clear debris from outlet seat. Look into providing new operators in order to close and open the gates quicker.</p> |
|  | <p>Inspect ID: 2016-0025 Title: 4504000006_CENAN_2022_B_0025_1_20220622T155426.jpg</p> <p>Rated Item: 20. Cranes Caption: Rating: Minimally Acceptable; Remarks: The crane is no longer used and is locked out of service. The local sponsor uses portable crane to remove motor if necessary.; Action: The local sponsor should update the O&M manual with procedures to use a portable crane.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0132 Title: 4504000006_CENAN_2022_B_0132_1_20220622T160419.jpg Rated Item: 1. Vegetation and Obstructions Caption: Rating: Minimally Acceptable; Remarks: Debris in retaining wall weephole.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project.</p> |
|  | <p>Inspect ID: 2016-0144 Title: _3_20220607T163114.jpg Rated Item: 1. Vegetation and Obstructions Caption: Rating: Minimally Acceptable; Vegetation located along the retaining wall on unprotected side of levee.; Action: Maintain vegetation free zone in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0122 Title: 4504000006_CENAN_2022_B_0122_3_20220622T174429.jpg Rated Item: 5. Concrete Surfaces Caption: Rating: Unacceptable; Remarks: Horizontal cracking on the unprotected face of the local sponsor constructed retaining wall with efflorescence running entire length of retaining wall.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project.</p> |
|  | <p>Inspect ID: 2016-0122 Title: 4504000006_CENAN_2022_B_0122_4_20220622T174439.jpg Rated Item: 5. Concrete Surfaces Caption: Rating: Unacceptable; Remarks: Horizontal cracking on the unprotected face of the local sponsor constructed retaining wall with efflorescence running entire length of retaining wall.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0127 Title: 4504000006_CENAN_2022_B_0127_1_20220622T182512.jpg Rated Item: 5. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: Spalling of unprotected face of retaining wall at monolith joint.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Repair concrete.</p> |
|  | <p>Inspect ID: 2016-0128 Title: 4504000006_CENAN_2022_B_0128_2_20220622T182703.jpg Rated Item: 5. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: Large vertical crack in retaining wall on the unprotected side.; The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Repair concrete.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0130 Title: _2_20220607T170614.jpg Rated Item: 5. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: Spalling and cracking of unprotected face of retaining wall near culvert and monolith joint.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project.</p> |
|  | <p>Inspect ID: 2016-0133 Title: 4504000006_CENAN_2022_B_0133_2_20220622T182955.jpg Rated Item: 5. Concrete Surfaces Caption: Rating: Unacceptable; Remarks: Large horizontal crack leading to vertical crack on unprotected side.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project. Repair concrete.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0133 Title: 4504000006_CENAN_2022_B_0133_3_20220622T183014.jpg Rated Item: 5. Concrete Surfaces Caption: Rating: Unacceptable; Remarks: Large horizontal crack leading to vertical crack on unprotected side.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project. Repair concrete.</p> |
|  | <p>Inspect ID: 2016-0134 Title: 4504000006_CENAN_2022_B_0134_2_20220622T183750.jpg Rated Item: 5. Concrete Surfaces Caption: Rating: Unacceptable; Remarks: Spalling of retaining wall on protected side.; Action: Repair concrete surfaces in accordance with USACE guidelines.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0135 Title: 4504000006_CENAN_2022_B_0135_2_20220622T180106.jpg Rated Item: 5. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: Large vertical crack in retaining wall on the unprotected side.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project. Repair concrete.</p> |
|  | <p>Inspect ID: 2016-0136 Title: 4504000006_CENAN_2022_B_0136_2_20220622T181935.jpg Rated Item: 5. Concrete Surfaces Caption: Rating: Minimally Acceptable; Remarks: Cracking on top of retaining wall.; Action: Repair concrete surfaces in accordance with USACE guidelines.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0139 Title: 4504000006_CENAN_2022_B_0139_2_20220622T183541.jpg</p> <p>Rated Item: 5. Concrete Surfaces Caption: Rating: Unacceptable; Remarks: Large vertical crack in retaining wall on the unprotected side.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project. Repair concrete.</p> |
|  | <p>Inspect ID: 2016-0140 Title: 4504000006_CENAN_2022_B_0140_4_20220622T180957.jpg</p> <p>Rated Item: 5. Concrete Surfaces Caption: Rating: Unacceptable; Remarks: Noted previously, older retaining wall with significant cracking and spalling.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Repair concrete.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0141 Title: _18_20220607T162501.jpg Rated Item: 5. Concrete Surfaces Caption: Rated Item: 5. Concrete Surfaces; Rating: Unacceptable; Remarks: Significant spalling and cracking on top of older raised retaining wall.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project. Repair concrete.</p> |
|  | <p>Inspect ID: 2016-0141 Title: 4504000006_CENAN_2022_B_0141_2_20220622T181224.jpg Rated Item: 5. Concrete Surfaces Caption: Rated Item: 5. Concrete Surfaces; Rating: Unacceptable; Remarks: Significant spalling and cracking on top of older raised retaining wall.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project. Repair concrete.</p> |


Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0142 Title: _2_20220607T165235.jpg Rated Item: 5. Concrete Surfaces Caption: Rating: Unacceptable; Remarks: Spalling of unprotected face of retaining wall at the monolith joint causing holes.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project. Repair concrete.</p> |
|  | <p>Inspect ID: 2016-0142 Title: 4504000006_CENAN_2022_B_0142_3_20220622T180443.jpg Rated Item: 5. Concrete Surfaces Caption: Rating: Unacceptable; Remarks: Spalling of unprotected face of retaining wall at the monolith joint causing holes.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project. Repair concrete.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0147 Title: _3_20220607T163335.jpg Rated Item: 5. Concrete Surfaces Caption: Rating: Unacceptable; Remarks: Spalling of retaining wall at monolith joint.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project. Repair concrete.</p> |
|  | <p>Inspect ID: 2016-0126 Title: _3_20220607T161020.jpg Rated Item: 6. Tilting, Sliding or Settlement of Concrete Structures Caption: Rating: Minimally Acceptable; Remarks: Monolith of local retaining wall is tilting toward the unprotected side by 3 inches, but less than 2" from adjoining monolith.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project.</p> |



Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|  | <p>Inspect ID: 2016-0126 Title: 4504000006_CENAN_2022_B_0126_2_20220622T172825.jpg Rated Item: 6. Tilting, Sliding or Settlement of Concrete Structures Caption: Rating: Minimally Acceptable; Remarks: Monolith of local retaining wall is tilting toward the unprotected side by 3 inches, but less than 2" from adjoining monolith.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Failure of these improvements could cause a cascading failure of the entire project.</p> |
|  | <p>Inspect ID: 2016-0131 Title: _2_20220607T161740.jpg Rated Item: 6. Tilting, Sliding or Settlement of Concrete Structures Caption: Rating: Minimally Acceptable; Remarks: A pair of retaining wall monoliths are tilting approximately 4 inches toward unprotected side, but less than 2" from adjoining monolith.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Monitor displacements for further movement.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

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|--|---|
|  | <p>Inspect ID: 2016-0131 Title: 4504000006_CENAN_2022_B_0131_2_20220622T173214.jpg Rated Item: 6. Tilting, Sliding or Settlement of Concrete Structures Caption: Rating: Minimally Acceptable; Remarks: A pair of retaining wall monoliths are tilting approximately 4 inches toward unprotected side, but less than 2" from adjoining monolith.; Action: The Bennington FRMP is predicated on the continued maintenance by the local sponsor of the locally constructed floodwall, retaining wall, and other revetments. Monitor displacements for further movement.</p> |
|  | <p>Inspect ID: 2016-0125 Title: 4504000006_CENAN_2022_B_0125_1_20220622T173632.jpg Rated Item: 7. Foundation of Concrete Structures Caption: Rating: Minimally Acceptable; Remarks: Several newly drilled weepholes at base of retaining wall.; Action: Verify authority for drilled weepholes.</p> |

Photos: Bennington, Roaring Branch Left Bank

For use during Initial and Continuing Eligibility Inspections of levee segments / systems



Inspect ID: 2016-0113 **Title:**

4504000006_CENAN_2022_B_0113_2_20220621T201051.jpg

Rated Item: 10. Riprap Revetments & Banks **Caption:**

Rating: Minimally Acceptable; Remarks: There appears to be a depression in riprap. Cannot confirm in 2022 inspection due to vegetation.; Action: Re-establish line and grade of the stream bank, and provide scour protection in accordance with USACE guidelines



**US Army Corps
of Engineers®**

Flood Damage Reduction System 4505000006 / Segment 4504000006 Public Sponsor Pre-Inspection Form

The following information is to be provided by the levee district sponsor prior to an inspection. This information will be used to help evaluate the organizational capability of the levee district to manage the levee segment / system maintenance program.

1. Levee segment / system and sponsor: (name of the segment / system and levee sponsor)

System 4505000006 / Segment 4504000006 CENAN

2. Reporting period: (month/day/year to month/day/year)

to

3. Summary of maintenance required by last inspection report:

4. Summary of maintenance performed this reporting period:

5. Summary of maintenance planned next reporting period:

6. Summary of changes to segment / system since last inspection:

7. Problems/ issues requiring the assistance of the US Army Corps of Engineers:

National Flood Insurance Program (NFIP) - 44 CFR 65.10 Provision Evaluation

| <u>FINDING</u> | | 44 CFR 65.10 Criterion | CFR Section |
|-----------------------------------|-----------------------------------|--|--------------------|
| <input type="checkbox"/> POSITIVE | <input type="checkbox"/> NEGATIVE | All closure devices, whether manual or automatic, are operated in accordance with an officially adopted operation manual. | 65.10(c) |
| <input type="checkbox"/> POSITIVE | <input type="checkbox"/> NEGATIVE | Manuals document a flood warning system that will be used to trigger emergency operation activities and demonstration that sufficient flood warning time exists for the completed operation of all closure structures. | 65.10(c)(1)i |
| <input type="checkbox"/> POSITIVE | <input type="checkbox"/> NEGATIVE | Manuals identify specific actions and assignments of responsibility by individual name or title. | 65.10(c)(1)ii |
| <input type="checkbox"/> POSITIVE | <input type="checkbox"/> NEGATIVE | Manuals identify provisions for periodic operation of closure structures for testing and training purposes, in accordance with the adopted operation manual. | 65.10(c)(1)iii |
| <input type="checkbox"/> POSITIVE | <input type="checkbox"/> NEGATIVE | Officially adopted maintenance plans documents the formal procedure that ensures that the stability, height, & overall integrity of the levee and its associated structures and systems are maintained. | 65.10(d) |
| <input type="checkbox"/> POSITIVE | <input type="checkbox"/> NEGATIVE | Maintenance plans specify the maintenance activities to be performed, the frequency of their performance, and the person by name or title responsible for their performance. | 65.10(d) |

General Instructions for the Inspection of Flood Damage Reduction Segments / Systems

A. Purpose of USACE Inspections

The primary purpose of these inspections is to prevent loss of life and catastrophic damages; preserve the value of Federal investments, and to encourage non-Federal sponsors to bear responsibility for their own protection. Inspections should assure that Flood Damage Reduction structures and facilities are continually maintained and operated as necessary to obtain the maximum benefits. Inspections are also conducted to determine eligibility for Rehabilitation Assistance under authority of PL 84-99 for Federal and non-Federal systems. (ER 1130-2-530, ER 500-1-1)

B. Types of Inspections:

The Corps conducts several types of inspections of Flood Damage Reduction systems, as outlined below:

| Initial Eligibility Inspections | Continuing Eligibility Inspections | |
|--|---|--|
| | Routine Inspections | Periodic Inspections |
| IEs are conducted to determine whether a non-Federally constructed Flood Damage Reduction system meets the minimum criteria and standards set forth by the Corps for initial inclusion into the Rehabilitation and Inspection Program. | RIs are intended to verify proper maintenance, owner preparedness, and component operation. | PIs are intended to verify proper maintenance and component operation and to evaluate operational adequacy, structural stability, and safety of the system. Periodic Inspections evaluate the system's original design criteria vs. current design criteria to determine potential performance impacts, evaluate the current conditions, and compare the design loads and design analysis used against current design standards. This is to be done to identify components and features for the sponsor that need to be monitored more closely over time or corrected as needed. (Periodic Inspections are used as the basis of risk assessments.) |

C. Inspection Boundaries:

Inspections should be conducted so as to rate each Flood Damage Reduction "Segment" of the system. The overall system rating will be the lowest segment rating in the system.

| Project | System | Segment |
|--|---|--|
| A flood damage reduction project is made up of one or more flood damage reduction systems which were under the same authorization. | A flood damage reduction system is made up of one or more flood damage reduction segments which collectively provide flood damage reduction to a defined area. Failure of one segment within a system constitutes failure of the entire system. Failure of one system does not affect another system. | A flood damage reduction segment is defined as a discrete portion of a flood damage reduction system that is operated and maintained by a single entity. A flood damage reduction segment can be made up of one or more features (levee, floodwall, pump stations, etc). |

D. Land Use Definitions:

The following three definitions are intended for use in determining minimum required inspection intervals and initial requirements for inclusion into the Rehabilitation and Inspection Program. Inspections should be considered for all systems that would result in significant environmental or economic impact upon failure regardless of specific land use.

| Agricultural | Rural | Urban |
|--|--|---|
| Protected population in the range of zero to 5 households per square mile protected. | Protected population in the range of 6 to 20 households per square mile protected. | Greater than 20 households per square mile; major industrial areas with significant infrastructure investment. Some protected urban areas have no permanent population but may be industrial areas with high value infrastructure with no overnight population. |

E. **Use of the Inspection Report Template:**

The report template is intended for use in all Army Corps of Engineers inspections of levee and floodwall systems and flood damage reduction channels. The section of the template labeled \"Initial Eligibility\" only needs to be completed during Initial Eligibility Inspections of Non-Federally constructed Flood Damage Reduction Systems. The section labeled \"General Items\" needs to be completed with every inspection, along with all other sections that correspond to features in the system. The section labeled \"Public Sponsor Pre-Inspection Report\" is intended for completion before the inspection, if possible.

F. **Individual Item / Component Ratings:**

Assessment of individual components rated during the inspection should be based on the criteria provided in the inspection report template, though inspectors may incorporate additional items into the report based on the characteristics of the system. The assessment of individual components should be based on the following definitions.

| Acceptable Item | Minimally Acceptable Item | Unacceptable Item |
|---|--|--|
| The inspected item is in satisfactory condition, with no deficiencies, and will function as intended during the next flood event. | The inspected item has one or more minor deficiencies that need to be corrected. The minor deficiency or deficiencies will not seriously impair the functioning of the item as intended during the next flood event. | The inspected item has one or more serious deficiencies that need to be corrected. The serious deficiency or deficiencies will seriously impair the functioning of the item as intended during the next flood event. |

G. **Overall Segment / System Ratings:**

Determination of the overall system rating is based on the definitions below. Note that an Unacceptable System Rating may be either based on an engineering determination that concluded that noted deficiencies would prevent the system from functioning as intended during the next flood event, or based on the sponsor's demonstrated lack of commitment or inability to correct serious deficiencies in a timely manner.

| Acceptable System | Minimally Acceptable System | Unacceptable System |
|--|---|---|
| All items or components are rated as Acceptable. | One or more items are rated as Minimally Acceptable or one or more items are rated as Unacceptable and an engineering determination concludes that the Unacceptable items would not prevent the segment / system from performing as intended during the next flood event. | One or more items are rated as Unacceptable and would prevent the segment / system from performing as intended, or a serious deficiency noted in past inspections (which had previously resulted in a minimally acceptable system rating) has not been corrected within the established timeframe, not to exceed two years. |

H. **Eligibility for PL84-99 Rehabilitation Assistance:**

Inspected systems that are not operated and maintained by the Federal government may be Active in the Corps' Rehabilitation and Inspection Program (RIP) and eligible for rehabilitation assistance from the Corps as defined below:

| If the Overall System Rating is Acceptable | If the Overall System Rating is Minimally Acceptable | If the Overall System Rating is Unacceptable |
|---|--|--|
| The system is active in the RIP and eligible for PL84-99 rehabilitation assistance. | The system is Active in the RIP during the time that it takes to make needed corrections. Active systems are eligible for rehabilitation assistance. However, if the sponsor does not present USACE with proof that serious deficiencies (which had previously resulted in a minimally acceptable system rating) were corrected within the established timeframe, then the system will become Inactive in the RIP. | The system is Inactive in the RIP, and the status will remain Inactive until the sponsor presents USACE with proof that all items rated Unacceptable have been corrected. Inactive systems are ineligible for rehabilitation assistance. |

I. Reporting:

After the inspection, the Corps is responsible for assembling an inspection report (or a summary report if it was a Periodic Inspection) including the following information:

- a. All sections of the report template used during the inspection, including the cover and pre-inspection materials. (Supplemental data collected, and any sections of the template that weren't used during the inspection do not need to be included with the report.)
- b. Photos of the general system condition and noted deficiencies.
- c. A plan view drawing of the system, with stationing, to reference locations of items rated less than acceptable.
- d. The relative importance of the identified maintenance issues should be specified in the transmittal letter.
- e. If the Overall System Rating is Minimally Acceptable, the report needs to establish a timeframe for correction of serious deficiencies noted (not to exceed two years) and indicate that if these items are not corrected within the required timeframe, the system will be rated as Unacceptable and made Inactive in the Rehabilitation Inspection Program.

J. Notification:

Reports are to be disseminated as follows within 30 days of the inspection date.

| If the Overall System Rating is Acceptable | If the Overall System Rating is Minimally Acceptable | If the Overall System Rating is Unacceptable |
|--|--|---|
| Reports need to be provided to the local sponsor and the county emergency management agency. | Reports need to be provided to the local sponsor, state emergency management agency, county emergency management agency, and to the FEMA region. | Reports need to be provided to the local sponsor, state emergency management agency, county emergency management agency, FEMA region, and to the Congressional delegation within 30 days of the inspection. |

Rating Section: 6. Levee Embankments

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|---------------------|----------------------|-----------------|---------------------------------------|
| Inspect ID: | 2016-0002 | | |
| Status: | Unresolved | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | Large tree at beginning of the levee. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T124836.jpg |
| Coordinates: | -73.19265 , 42.88673 | | |

| | | | |
|---------------------|----------------------|-----------------|---------------------------------------|
| Inspect ID: | 2016-0005 | | |
| Status: | Unresolved | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | Tree on levee at new school entrance. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T125136.jpg |
| Coordinates: | -73.19261 , 42.88689 | | |

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|---------------------|----------------------|-----------------|--|
| Inspect ID: | 2016-0012 | | |
| Status: | Unresolved | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | Large tree near crown of levee near ponding area. Tree was planted as part of the project. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T131052.jpg |
| Coordinates: | -73.19258 , 42.88723 | | |

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|---------------------|---|-----------------|---|
| Inspect ID: | 2016-0037 | | |
| Status: | Unresolved | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | Vegetation on riprap west of pump station along toe of unprotected levee slope. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0037 2 20220615T190959.jpg |
| Coordinates: | -73.19258 , 42.88786 , -73.19256 , 42.88822 | | |

| | | | |
|---------------------|---|-----------------|---|
| Inspect ID: | 2016-0063 | | |
| Status: | Unresolved | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | Line of brush and trees located on levee toe and toe drain on the protected side. |
| Rating: | Unacceptable | Photo: | 2 20220607T135602.jpg |
| Coordinates: | -73.19010 , 42.88720 , -73.18776 , 42.88632 | | |

| | | | |
|---------------------|----------------------|-----------------|--|
| Inspect ID: | 2016-0089 | | |
| Status: | Unresolved | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | Several trees encroaching levee and levee toe drain. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T143348.jpg |
| Coordinates: | -73.18622 , 42.88561 | | |

| | | | |
|---------------------|---|-----------------|---|
| Inspect ID: | 2016-0095 | | |
| Status: | Unresolved | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | Trees encroached on the toe of protected side of levee slope. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B 0095 2 20220615T192448.jpg |
| Coordinates: | -73.18499 , 42.88503 , -73.18435 , 42.88486 | | |

| | | | |
|---------------------|----------------------|-----------------|--|
| Inspect ID: | 2016-0096 | | |
| Status: | Unresolved | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | 8 inch tree stump on unprotected levee slope. Stump appears to be decomposing. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T145104.jpg |
| Coordinates: | -73.18508 , 42.88526 | | |

| | | | |
|---------------------|----------------------|-----------------|---|
| Inspect ID: | 2016-0097 | | |
| Status: | Unresolved | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | 8-inch diam. tree stump located on unprotected side of levee near levee crown. This section was widened. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B 0097 2 20220615T193042.jpg |
| Coordinates: | -73.18488 , 42.88510 | | |

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|---------------------|----------------------|-----------------|---|
| Inspect ID: | 2016-0153 | | |
| Status: | Unresolved | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | Vegetation on the levee crown at DS #4. |
| Rating: | Minimally Acceptable | Photo: | 4 20220607T164214.jpg |
| Coordinates: | -73.18016 , 42.88218 | | |

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|---------------------|---|-----------------|---|
| Inspect ID: | 2016-0155 | | |
| Status: | Unresolved | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | Upstream station of DS #4, numerous trees within 15' of the protected side toe of the levee that range from 2-inch to 20-inch diameter. |
| Rating: | Unacceptable | Photo: | 4_20220607T164844.jpg |
| Coordinates: | -73.18020 , 42.88220 , -73.18002 , 42.88231 | | |

| | | | |
|---------------------|---|-----------------|--|
| Inspect ID: | 2022-0162 | | |
| Status: | Typical Conditions | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | Sod cover at up stream end of system is well maintained from the high ground tie-in to the transition to the flood wall. |
| Rating: | Acceptable | Photo: | |
| Coordinates: | -73.18004 , 42.88225 , -73.17949 , 42.88254 | | |

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| Inspect ID: | 2016-0004 | | |
| Status: | Unresolved | Item: | 2. Sod Cover |
| Location: | | Remarks: | Poor sod cover where new school entrance crosses levee. |
| Rating: | Minimally Acceptable | Photo: | 2_20220607T125044.jpg 4504000006_CENAN_2022_B 0004_3_20220621T173629.jpg |
| Coordinates: | -73.19270 , 42.88688 | | |

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| Inspect ID: | 2016-0045 | | |
| Status: | Unresolved | Item: | 2. Sod Cover |
| Location: | | Remarks: | Pedestrian traffic has resulted in loss of sod cover on levee crown. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B 0045_2_20220621T173536.jpg |
| Coordinates: | -73.19262 , 42.88728 , -73.19252 , 42.88820 | | |

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| Inspect ID: | 2016-0075 | | |
| Status: | Unresolved | Item: | 2. Sod Cover |
| Location: | | Remarks: | Pervious toe drain material surfacing through sod cover at levee toe protected side. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0075_3_20220615T194522.jpg 4504000006_CENAN_2022_B_0075_2_20220615T194839.jpg |
| Coordinates: | -73.18871 , 42.88655 | | |

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| Inspect ID: | 2016-0088 | | |
| Status: | Monitor | Item: | 2. Sod Cover |
| Location: | | Remarks: | Footpath forming on riverside slope for river access. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0088_2_20220621T194239.jpg |
| Coordinates: | -73.18662 , 42.88582 | | |

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| Inspect ID: | 2016-0151 | | |
| Status: | Monitor | Item: | 2. Sod Cover |
| Location: | | Remarks: | End of levee near DS#4 over grown with weeds. |
| Rating: | Minimally Acceptable | Photo: | 2_20220607T164108.jpg |
| Coordinates: | -73.18012 , 42.88215 | | |

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| Inspect ID: | 2016-0001 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | Utility pole, street sign, streetlight and guy wires at start of levee. School driveway was constructed through the levee. |
| Rating: | Minimally Acceptable | Photo: | 3_20220607T124757.jpg |
| Coordinates: | -73.19268 , 42.88667 | | |

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| Inspect ID: | 2016-0003 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | Multiple tree roots protruding from unprotected levee slope, next to new school driveway. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0003_2_20220621T193313.jpg |
| Coordinates: | -73.19271 , 42.88678 | | |

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| Inspect ID: | 2016-0006 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | Road signs and telephone poles at levee toe unprotected side. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T125333.jpg |
| Coordinates: | -73.19272 , 42.88696 , -73.19260 , 42.88822 | | |

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| Inspect ID: | 2016-0007 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | New driveway to school was cut into levee embankment resulting in a reduced elevation of protection. |
| Rating: | Unacceptable | Photo: | 2 20220607T125210.jpg |
| Coordinates: | -73.19275 , 42.88683 | | |

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| Inspect ID: | 2016-0044 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | Large metal sign on landside levee slope. |
| Rating: | Minimally Acceptable | Photo: | 3 20220607T132421.jpg |
| Coordinates: | -73.19252 , 42.88758 | | |

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| Inspect ID: | 2016-0079 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | Footpath running from toe of embankment to levee crown. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B 0079 2 20220621T193940.jpg |
| Coordinates: | -73.18769 , 42.88621 | | |

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| Inspect ID: | 2016-0080 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | Gravel ramp running up unprotected side of levee and crown. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T142357.jpg |
| Coordinates: | -73.18763 , 42.88621 | | |

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| Inspect ID: | 2016-0099 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | Levee was widened on the unprotected side from the project cross section. Area of vegetation and possible settlement is located on the riverside of original levee slope. |
| Rating: | Minimally Acceptable | Photo: | 5 20220607T145656.jpg |
| Coordinates: | -73.18463 , 42.88498 | | |

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| Inspect ID: | 2016-0100 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | Large trail leading to levee. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B 0100 3 20220621T194554.jpg |
| Coordinates: | -73.18431 , 42.88486 | | |

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| Inspect ID: | 2016-0101 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | Vehicle ramp on levee. "No vehicles" sign posted by road entrance to levee. Blocked by rope. Sign and rope were torn down at the time of 2022 inspection. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T150150.jpg |
| Coordinates: | -73.18420 , 42.88485 | | |

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| Inspect ID: | 2016-0158 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | Gravel ramp leading to levee not on project plans. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T164557.jpg |
| Coordinates: | -73.17901 , 42.88252 | | |

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| Inspect ID: | 2016-0159 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | Wooden garden fence posts at levee tie in |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T164629.jpg |
| Coordinates: | -73.17886 , 42.88253 | | |

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| Inspect ID: | 2016-0160 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | The levee ties into the existing ground at a private dwelling. Landscaping including a stone wheel appear to be on the levee. |
| Rating: | Minimally Acceptable | Photo: | _2_ 20220607T164733.jpg 3_ 20220607T164748.jpg |
| Coordinates: | -73.17878 , 42.88256 | | |

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|---------------------|----------------------|-----------------|--------------------------------------|
| Inspect ID: | 2022-0001 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | Temporary shed from school on levee. |
| Rating: | Minimally Acceptable | Photo: | 1_ 20220607T125719.jpg |
| Coordinates: | -73.19253 , 42.88669 | | |

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|---------------------|----------------------|-----------------|--|
| Inspect ID: | 2022-0003 | | |
| Status: | Unresolved | Item: | 3. Encroachments |
| Location: | | Remarks: | Monitoring well on levee crest near electrical Distribution Station. |
| Rating: | Minimally Acceptable | Photo: | 1_ 20220607T143557.jpg |
| Coordinates: | -73.18744 , 42.88532 | | |

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| Inspect ID: | 2016-0057 | | |
| Status: | Unresolved | Item: | 5. Slope Stability |
| Location: | | Remarks: | Levee slope appears to be sliding on unprotected side. Levee irregularity appears to be a localized bearing failure of the crown due to vehicle loads. |
| Rating: | Minimally Acceptable | Photo: | 1_ 20220607T134344.jpg |
| Coordinates: | -73.19064 , 42.88744 , -73.19005 , 42.88721 | | |

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| Inspect ID: | 2016-0060 | | |
| Status: | Unresolved | Item: | 5. Slope Stability |
| Location: | | Remarks: | Multiple depressions in levee slope on protected side. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0060_2_20220616T112141.jpg |
| Coordinates: | -73.19030 , 42.88724 | | |

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| Inspect ID: | 2016-0038 | | |
| Status: | Unresolved | Item: | 6. Erosion/ Bank Caving |
| Location: | | Remarks: | Erosion and lack of sod cover at pump station due to the local citizens and students walking and riding bikes past the pumping station from the north. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0038_2_20220616T112303.jpg |
| Coordinates: | -73.19249 , 42.88812 | | |

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| Inspect ID: | 2016-0048 | | |
| Status: | Unresolved | Item: | 6. Erosion/ Bank Caving |
| Location: | | Remarks: | 5-ft wide depression on unprotected embankment near riprap. Could not confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 2_20220607T133103.jpg |
| Coordinates: | -73.19197 , 42.88797 | | |

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| Inspect ID: | 2016-0051 | | |
| Status: | Unresolved | Item: | 7. Settlement |
| Location: | | Remarks: | USACE survey data indicates the elevation of the levee to be approximately 1 to 2 ft lower than the as-built drawings, and up to 2.7 ft at sta 11+90. |
| Rating: | Unacceptable | Photo: | _1_20220607T140408.jpg 2_20220607T140417.jpg |
| Coordinates: | -73.19125 , 42.88766 , -73.18739 , 42.88613 | | |

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| Inspect ID: | 2016-0157 | | |
| Status: | Unresolved | Item: | 7. Settlement |
| Location: | | Remarks: | USACE survey data indicates the elevation of the levee to be approximately 2.7 ft lower than the elevation shown on the as-built drawings. |
| Rating: | Unacceptable | Photo: | 4504000006_CENAN_2022_B_0157_2_20220616T112751.jpg |
| Coordinates: | -73.17960 , 42.88249 , -73.17868 , 42.88251 | | |

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| Inspect ID: | 2016-0161 | | |
| Status: | Unresolved | Item: | 7. Settlement |
| Location: | | Remarks: | Gap exists between end of concrete I-Wall and SSP cutoff wall. Significant vegetation surrounding area. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0161_2_20220616T112903.jpg |
| Coordinates: | -73.18019 , 42.88221 | | |

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| Inspect ID: | 2016-0011 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | A small deep depression on levee crown is approximately 2' wide by 1' deep. |
| Rating: | Minimally Acceptable | Photo: | 2_20220607T130937.jpg |
| Coordinates: | -73.19259 , 42.88713 | | |

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| Inspect ID: | 2016-0039 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | A footpath leading up the levee has formed a rut. |
| Rating: | Minimally Acceptable | Photo: | 2_20220607T132004.jpg |
| Coordinates: | -73.19259 , 42.88776 | | |

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| Inspect ID: | 2016-0050 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | Minor depression of crown, forms a low point. |
| Rating: | Minimally Acceptable | Photo: | 1_20220607T133450.jpg |
| Coordinates: | -73.19140 , 42.88773 | | |

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| Inspect ID: | 2016-0053 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | Small depression running down levee slope on protected side. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0053_2_20220616T115458.jpg |
| Coordinates: | -73.19121 , 42.88764 | | |

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| Inspect ID: | 2016-0056 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | Foot path has made a depression running up levee slope on protected side. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T134456.jpg |
| Coordinates: | -73.19104 , 42.88756 | | |

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| Inspect ID: | 2016-0058 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | Rutting on toe of levee on protected side. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0058_2_20220616T115653.jpg |
| Coordinates: | -73.19040 , 42.88727 | | |

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| Inspect ID: | 2016-0062 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | Large hole in unprotected side filled with rocks. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T135509.jpg |
| Coordinates: | -73.19011 , 42.88722 | | |

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| Inspect ID: | 2016-0065 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | Depression in levee slope on protected side. Levee slope is irregular and is typical conditions. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T135948.jpg |
| Coordinates: | -73.18976 , 42.88704 | | |

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| Inspect ID: | 2016-0074 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | Rutting at toe of levee on protected side. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0074_1_20220616T120036.jpg |
| Coordinates: | -73.18894 , 42.88668 | | |

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| Inspect ID: | 2016-0076 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | Depression on levee toe protected side. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0076_1_20220616T120157.jpg |
| Coordinates: | -73.18835 , 42.88643 | | |

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| Inspect ID: | 2016-0078 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | Footpath on unprotected side of levee has formed a rut. |
| Rating: | Minimally Acceptable | Photo: | 2_20220607T142115.jpg |
| Coordinates: | -73.18774 , 42.88627 | | |

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| Inspect ID: | 2016-0085 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | Depression in levee crown extends from gravel ramp to power sub-station. |
| Rating: | Minimally Acceptable | Photo: | 3_20220607T142831.jpg |
| Coordinates: | -73.18701 , 42.88597 | | |

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| Inspect ID: | 2016-0094 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | Rutting and/or sliding of levee toe landside. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0094_2_20220616T120449.jpg |
| Coordinates: | -73.18526 , 42.88517 | | |

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| Inspect ID: | 2016-0098 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | Rutting at levee toe protected side. |
| Rating: | Minimally Acceptable | Photo: | 2_20220607T145507.jpg |
| Coordinates: | -73.18472 , 42.88496 | | |

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| Inspect ID: | 2016-0103 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | Elevation of the levee at the tie-in with the floodwall appears to be low as the sheet pile is exposed. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T150619.jpg |
| Coordinates: | -73.18412 , 42.88486 | | |

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| Inspect ID: | 2016-0154 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | Levee crown is rounding and slopes toward the unprotected side of the levee. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0154_2_20220616T120745.jpg |
| Coordinates: | -73.18016 , 42.88218 , -73.17960 , 42.88249 | | |

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| Inspect ID: | 2016-0156 | | |
| Status: | Unresolved | Item: | 8. Depressions/ Rutting |
| Location: | | Remarks: | A small depression on the levee crown. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T164500.jpg |
| Coordinates: | -73.17921 , 42.88258 | | |

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| Inspect ID: | 2016-0035 | | |
| Status: | Unresolved | Item: | 10. Animal Control |
| Location: | | Remarks: | Animal burrow at wingwall of pump station. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0035_3_20220616T121415.jpg |
| Coordinates: | -73.19245 , 42.88803 | | |

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| Inspect ID: | 2016-0036 | | |
| Status: | Unresolved | Item: | 10. Animal Control |
| Location: | | Remarks: | 8" by 3' deep animal burrow near top of crown adjacent to pump station. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0036_2_20220616T121514.jpg |
| Coordinates: | -73.19248 , 42.88802 | | |

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| Inspect ID: | 2016-0054 | | |
| Status: | Monitor | Item: | 10. Animal Control |
| Location: | | Remarks: | Animal burrow on protected side of levee slope by ponding area. 3.5' by 6" diameter. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Acceptable | Photo: | 4504000006_CENAN_2022_B_0054_2_20220616T121806.jpg |
| Coordinates: | -73.19121 , 42.88762 | | |

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|---------------------|----------------------|-----------------|---|
| Inspect ID: | 2016-0152 | | |
| Status: | Unresolved | Item: | 10. Animal Control |
| Location: | | Remarks: | Noted previously a deep borrow hole located on top of DS #4. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0152_1_20220616T122613.jpg |
| Coordinates: | -73.18016 , 42.88215 | | |

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| Inspect ID: | 2022-0002 | | |
| Status: | Unresolved | Item: | 10. Animal Control |
| Location: | | Remarks: | Multiple animal burrows on protected side slope. |
| Rating: | Minimally Acceptable | Photo: | _1_20220607T130527.jpg 4504000006_CENAN_2022_B_0002_2_20220607T130604.jpg _3_20220607T131122.jpg |
| Coordinates: | -73.19270 , 42.88670 , -73.19257 , 42.88752 | | |

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| Inspect ID: | 2016-0084 | | |
| Status: | Resolved | Item: | 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) |
| Location: | | Remarks: | The 11 Nov 2014 video inspection of D.S. #2 shows off set joints with soil loss into the culvert. |
| Rating: | Unacceptable | Photo: | |
| Coordinates: | -73.18765 , 42.88646 | | |

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| Inspect ID: | 2016-0104 | | |
| Status: | Unresolved | Item: | 11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) |
| Location: | | Remarks: | The culvert to D.S. # 3 contains small cobbles, pipe sections seem to be offset, and there appears to be a belly in the pipe. The 11 Nov 2014 video inspection report notes a circumferential fracture at 13.1 ft, however the video shows more damage. Vegetation surrounding structure in 2022 inspection. |
| Rating: | Unacceptable | Photo: | 1 20220607T150416.jpg |
| Coordinates: | -73.18413 , 42.88491 | | |

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| Inspect ID: | 2022-0163 | | |
| Status: | Typical Conditions | Item: | 12. Riprap Revetments & Bank Protection |
| Location: | | Remarks: | There was significant vines and start of small trees on riprap. Highly recommend that the city begin a vegetation spray control plan to keep this under control. Once this becomes established it is significantly more costly to get back under control. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0163_1_20220630T164953.jpg 4504000006_CENAN_2022_B_0163_2_20220630T165005.jpg |
| Coordinates: | -73.18160 , 42.88361 , -73.18042 , 42.88256 | | |

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| Inspect ID: | 2016-0059 | | |
| Status: | Unresolved | Item: | 14. Underseepage Relief Wells/ Toe Drainage Systems |
| Location: | | Remarks: | New school parking lot runs up against the levee toe drain, and interior drainage ditch. Drainage ditch is constructed from pervious material and is now sod covered - determine if this is an appropriate cover. |
| Rating: | Unacceptable | Photo: | 2 20220607T135032.jpg |
| Coordinates: | -73.19026 , 42.88715 | | |

Rating Section: 7. Concrete Floodwalls

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| Inspect ID: | 2016-0105 | | |
| Status: | Unresolved | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | Unwanted vegetation growth on both protected and unprotected side of floodwall. Vegetation hinders inspection of floodwalls in 2022. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B 0105 2 20220622T135951.jpg |
| Coordinates: | -73.18411 , 42.88490 , -73.18215 , 42.88398 | | |

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| Inspect ID: | 2016-0110 | | |
| Status: | Unresolved | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | Large tree stump 3-ft diam. located within 15-ft of floodwall. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 1 20220607T152833.jpg |
| Coordinates: | -73.18366 , 42.88479 | | |

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| Inspect ID: | 2022-0007 | | |
| Status: | Unresolved | Item: | 1. Unwanted Vegetation Growth |
| Location: | | Remarks: | Large tree root 3' from wall. |
| Rating: | Unacceptable | Photo: | 1 20220607T163433.jpg |
| Coordinates: | -73.18096 , 42.88220 | | |

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| Inspect ID: | 2016-0109 | | |
| Status: | Unresolved | Item: | 2. Encroachments |
| Location: | | Remarks: | Debris obstructing access to floodwall protected side. |
| Rating: | Minimally Acceptable | Photo: | 3 20220607T152238.jpg |
| Coordinates: | -73.18370 , 42.88472 | | |

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| Inspect ID: | 2016-0111 | | |
| Status: | Unresolved | Item: | 2. Encroachments |
| Location: | | Remarks: | Vegetation and yard debris within 15-ft of local floodwall. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T153628.jpg |
| Coordinates: | -73.18297 , 42.88437 | | |

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| Inspect ID: | 2016-0117 | | |
| Status: | Unresolved | Item: | 2. Encroachments |
| Location: | | Remarks: | Vegetation, yard debris, and a metal fence within 15-ft of local floodwall. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T154044.jpg |
| Coordinates: | -73.18267 , 42.88422 | | |

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| Inspect ID: | 2016-0119 | | |
| Status: | Unresolved | Item: | 2. Encroachments |
| Location: | | Remarks: | Trailer and garage against local floodwall protected side. 2022: Trailer is gone. Garage still remains. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T154257.jpg |
| Coordinates: | -73.18228 , 42.88403 | | |

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| Inspect ID: | 2016-0107 | | |
| Status: | Unresolved | Item: | 4. Concrete Surfaces |
| Location: | | Remarks: | Minor cracking on end of concrete floodwall (where floodway ties into levee embankment). Crack is a reflection of sheeting. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T151008.jpg |
| Coordinates: | -73.18408 , 42.88486 | | |

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| Inspect ID: | 2016-0112 | | |
| Status: | Unresolved | Item: | 4. Concrete Surfaces |
| Location: | | Remarks: | Vertical crack in local floodwall on protected side. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0112_2_20220616T125753.jpg |
| Coordinates: | -73.18346 , 42.88465 | | |

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| Inspect ID: | 2016-0114 | | |
| Status: | Unresolved | Item: | 4. Concrete Surfaces |
| Location: | | Remarks: | Surface defects on the protected face of the local floodwall. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0114_2_20220616T125901.jpg |
| Coordinates: | -73.18284 , 42.88435 | | |

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| Inspect ID: | 2016-0115 | | |
| Status: | Unresolved | Item: | 4. Concrete Surfaces |
| Location: | | Remarks: | A hole in the local retaining wall was not patched after the tie holding the forms was removed. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T153250.jpg |
| Coordinates: | -73.18303 , 42.88445 | | |

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| Inspect ID: | 2016-0116 | | |
| Status: | Unresolved | Item: | 4. Concrete Surfaces |
| Location: | | Remarks: | A pair of vertical cracks with efflorescence near the monolith joint. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B 0116 2 20220622T140738.jpg |
| Coordinates: | -73.18301 , 42.88443 | | |

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| Inspect ID: | 2016-0118 | | |
| Status: | Unresolved | Item: | 4. Concrete Surfaces |
| Location: | | Remarks: | Horizontal cracking on both protected and unprotected faces of local floodwall with efflorescence. |
| Rating: | Minimally Acceptable | Photo: | 3 20220607T154157.jpg 4504000006_CENAN_2022_B 0118 2 20220622T141025.jpg |
| Coordinates: | -73.18226 , 42.88401 | | |

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| Inspect ID: | 2016-0120 | | |
| Status: | Unresolved | Item: | 4. Concrete Surfaces |
| Location: | | Remarks: | Spalling of local floodwall at monolith joint on unprotected side. |
| Rating: | Minimally Acceptable | Photo: | 1 20220607T154410.jpg |
| Coordinates: | -73.18216 , 42.88393 | | |

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|---------------------|----------------------|-----------------|--|
| Inspect ID: | 2016-0121 | | |
| Status: | Unresolved | Item: | 4. Concrete Surfaces |
| Location: | | Remarks: | Concrete spalling along top of local floodwall, exposed reinforcement. |
| Rating: | Minimally Acceptable | Photo: | 5 20220607T154455.jpg |
| Coordinates: | -73.18214 , 42.88388 | | |

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| Inspect ID: | 2016-0123 | | |
| Status: | Unresolved | Item: | 4. Concrete Surfaces |
| Location: | | Remarks: | Vertical crack extending height of wall near bridge abutment. |
| Rating: | Minimally Acceptable | Photo: | 3 20220607T155244.jpg |
| Coordinates: | -73.18198 , 42.88383 | | |

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| Inspect ID: | 2016-0124 | | |
| Status: | Unresolved | Item: | 4. Concrete Surfaces |
| Location: | | Remarks: | 6" by 6" spall at bridge abutment joint upstream. |
| Rating: | Minimally Acceptable | Photo: | 3 20220607T155744.jpg |
| Coordinates: | -73.18197 , 42.88378 | | |

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| Inspect ID: | 2016-0137 | | |
| Status: | Unresolved | Item: | 4. Concrete Surfaces |
| Location: | | Remarks: | Cracking and spalling of retaining wall on protected side. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T162139.jpg |
| Coordinates: | -73.18160 , 42.88347 | | |

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|---------------------|----------------------|-----------------|--|
| Inspect ID: | 2016-0108 | | |
| Status: | Unresolved | Item: | 5. Tilting, Sliding or Settlement of Concrete Structures |
| Location: | | Remarks: | Noted in the previous inspection, 2-inch joint separation between floodwall and abutment. The joint between monolith #6 and the local floodwall has displacement 1-5/8-in. The monolith also tips slightly to the unprotected side. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 7_20220607T152557.jpg 4504000006_CENAN_2022_B_0108_2_20220616T133322.jpg 4504000006_CENAN_2022_B_0108_3_20220616T133332.jpg 4504000006_CENAN_2022_B_0108_4_20220616T133341.jpg 4504000006_CENAN_2022_B_0108_5_20220616T133348.jpg |
| Coordinates: | -73.18369 , 42.88475 | | |

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| Inspect ID: | 2016-0149 | | |
| Status: | Unresolved | Item: | 5. Tilting, Sliding or Settlement of Concrete Structures |
| Location: | | Remarks: | 1/2-inch vertical displacement at monolith joint between monoliths 7 & 8. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T163824.jpg |
| Coordinates: | -73.18026 , 42.88215 | | |

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| Inspect ID: | 2022-0005 | | |
| Status: | Unresolved | Item: | 5. Tilting, Sliding or Settlement of Concrete Structures |
| Location: | | Remarks: | Concrete at joint between monoliths severely degraded. Large (18") piece of concrete loosely hanging off water side of floodwall. Severe cracking on top of the floodwall at the joint. |
| Rating: | Minimally Acceptable | Photo: | _1_ 20220607T160444.jpg _2_ 20220607T160546.jpg |
| Coordinates: | -73.18146 , 42.88295 | | |

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|---------------------|----------------------|-----------------|--|
| Inspect ID: | 2016-0129 | | |
| Status: | Monitor | Item: | 7. Monolith Joints |
| Location: | | Remarks: | Monolith joint offset of 3/4 inch. Water Stop is broken. |
| Rating: | Minimally Acceptable | Photo: | 3 20220607T160020.jpg |
| Coordinates: | -73.18191 , 42.88372 | | |

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| Inspect ID: | 2016-0148 | | |
| Status: | Unresolved | Item: | 7. Monolith Joints |
| Location: | | Remarks: | Separation at monolith joint where local retaining wall meets floodwall monolith #7. |
| Rating: | Minimally Acceptable | Photo: | 4 20220607T163725.jpg |
| Coordinates: | -73.18034 , 42.88213 | | |

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| Inspect ID: | 2022-0006 | | |
| Status: | Unresolved | Item: | 9. Seepage |
| Location: | | Remarks: | Small rodent hole about one foot deep and 3 inches in diameter behind floodwall. |
| Rating: | Minimally Acceptable | Photo: | 1 20220607T161448.jpg |
| Coordinates: | -73.18162 , 42.88309 | | |

Rating Section: 9. Interior Drainage System

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|---------------------|----------------------|-----------------|--|
| Inspect ID: | 2016-0070 | | |
| Status: | Resolved | Item: | 1. Vegetation and Obstructions |
| Location: | | Remarks: | Drainage ditch is partially filled. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0070_2_20220622T142530.jpg |
| Coordinates: | -73.18932 , 42.88684 | | |

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|---------------------|---|-----------------|--|
| Inspect ID: | 2016-0145 | | |
| Status: | Unresolved | Item: | 1. Vegetation and Obstructions |
| Location: | | Remarks: | It was noted previously that the drainage ditch leading from DS #4 was filled in by riprap. The path for the discharge from DS #4 appears to slope upward for some distance. |
| Rating: | Minimally Acceptable | Photo: | _3_20220607T163022.jpg _4_20220607T163035.jpg |
| Coordinates: | -73.18032 , 42.88224 , -73.18087 , 42.88279 | | |

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|---------------------|----------------------|-----------------|--|
| Inspect ID: | 2016-0150 | | |
| Status: | Unresolved | Item: | 1. Vegetation and Obstructions |
| Location: | | Remarks: | DS #4 debris and vegetation in front of structure. Most of the vegetation has been cut, but some remains. Outfall looks clear and flapgate closes. Intake is covered with leaves and debris. |
| Rating: | Unacceptable | Photo: | 5_20220607T163930.jpg |
| Coordinates: | -73.18032 , 42.88224 | | |

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|---------------------|----------------------|-----------------|---|
| Inspect ID: | 2016-0008 | | |
| Status: | Unresolved | Item: | 2. Encroachments |
| Location: | | Remarks: | Two HDPE stormwater drains enter ponding area and are not shown on the project plans. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0008_3_20220622T142742.jpg |
| Coordinates: | -73.19209 , 42.88705 | | |

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|---------------------|----------------------|-----------------|---|
| Inspect ID: | 2016-0009 | | |
| Status: | Unresolved | Item: | 2. Encroachments |
| Location: | | Remarks: | Changes at the school includes a parking lot adjacent to the ponding area and removal of the perimeter fence. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0009_4_20220622T143103.jpg |
| Coordinates: | -73.19194 , 42.88702 | | |

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|---------------------|----------------------|-----------------|--|
| Inspect ID: | 2016-0032 | | |
| Status: | Unresolved | Item: | 2. Encroachments |
| Location: | | Remarks: | 15-inch HDPE at pumping station outlet not on project plans. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0032_4_20220622T143222.jpg 4504000006_CENAN_2022_B_0032_2_20220622T143429.jpg 4504000006_CENAN_2022_B_0032_3_20220622T143434.jpg |
| Coordinates: | -73.19241 , 42.88823 | | |

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|---------------------|----------------------|-----------------|--|
| Inspect ID: | 2016-0064 | | |
| Status: | Unresolved | Item: | 2. Encroachments |
| Location: | | Remarks: | 4" PVC drainage pipe discharges into the drainage ditch is not shown on the project plans. Cannot locate in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0064_2_20220622T143551.jpg |
| Coordinates: | -73.18994 , 42.88711 | | |

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|---------------------|----------------------|-----------------|---|
| Inspect ID: | 2016-0067 | | |
| Status: | Unresolved | Item: | 2. Encroachments |
| Location: | | Remarks: | Asphalt driveway is approx. 16 feet from centerline of ditch. |
| Rating: | Minimally Acceptable | Photo: | 2_20220607T140048.jpg |
| Coordinates: | -73.18982 , 42.88701 | | |

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|---------------------|----------------------|-----------------|---|
| Inspect ID: | 2016-0071 | | |
| Status: | Unresolved | Item: | 2. Encroachments |
| Location: | | Remarks: | Wooden structure and garden within 15 feet of drainage ditch/toe drain. |
| Rating: | Minimally Acceptable | Photo: | 2 20220607T140727.jpg |
| Coordinates: | -73.18915 , 42.88676 | | |

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| Inspect ID: | 2016-0046 | | |
| Status: | Monitor | Item: | 3. Ponding Areas |
| Location: | | Remarks: | Ponding area appears to have been filled and leveled to accommodate a sports field. |
| Rating: | Minimally Acceptable | Photo: | 3 20220607T132604.jpg |
| Coordinates: | -73.19199 , 42.88762 | | |

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| Inspect ID: | 2016-0031 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces (Such as gate wells, outfalls, intakes, or culverts) |
| Location: | | Remarks: | Vertical crack in drainage structure of pumping station on backside. |
| Rating: | Minimally Acceptable | Photo: | 2 20220606T185802.jpg |
| Coordinates: | -73.19240 , 42.88806 | | |

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| Inspect ID: | 2016-0034 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces (Such as gate wells, outfalls, intakes, or culverts) |
| Location: | | Remarks: | Cracking with efflorescence on top of drainage structure at pumping station. |
| Rating: | Minimally Acceptable | Photo: | 2 20220606T185716.jpg |
| Coordinates: | -73.19242 , 42.88801 | | |

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| Inspect ID: | 2016-0082 | | |
| Status: | Monitor | Item: | 9. Culverts/ Discharge Pipes |
| Location: | | Remarks: | DS #2 drop inlet appears clean and functional. |
| Rating: | Acceptable | Photo: | 3 20220607T142010.jpg |
| Coordinates: | -73.18783 , 42.88626 | | |

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| Inspect ID: | 2016-0106 | | |
| Status: | Monitor | Item: | 9. Culverts/ Discharge Pipes |
| Location: | | Remarks: | Rating: Acceptable; Remarks: DS #3 drop inlet appears clean and functional. |
| Rating: | Acceptable | Photo: | 3 20220607T145957.jpg |
| Coordinates: | -73.18420 , 42.88489 | | |

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| Inspect ID: | 2016-0081 | | |
| Status: | Unresolved | Item: | 11. Flap Gates/ Flap Valves/ Pinch Valves |
| Location: | | Remarks: | DS#2 outfall was reconstructed in 2012. Concrete is in good condition except for 12" spall on top of floodwall. Flap gate operational and pipe is clear. Vegetation surrounding DS #2 and in drainage channel outlet. |
| Rating: | Acceptable | Photo: | 6 20220607T142517.jpg 4504000006_CENAN_2022_B 0081 3 20220622T150226.jpg |
| Coordinates: | -73.18768 , 42.88635 | | |

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| Inspect ID: | 2016-0102 | | |
| Status: | Unresolved | Item: | 11. Flap Gates/ Flap Valves/ Pinch Valves |
| Location: | | Remarks: | Noted previously vegetation covering flap gate for D.S. #3. Structure is obscured greatly by vegetation and is becoming very overgrown. Flap gate still operates. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B _0102_2_20220616T184107.jpg 4504000006_CENAN_2022_B 0102 2 20220622T150922.jpg |
| Coordinates: | -73.18413 , 42.88486 | | |

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| Inspect ID: | 2016-0055 | | |
| Status: | Unresolved | Item: | 14. Riprap Revetments of Inlet/ Discharge Areas |
| Location: | | Remarks: | Erosion, scouring and undermining next to concrete toe drain outlet channel. The channel itself is spalling. The headwall also has spalling. Pipe was video inspected and cleaned. Minor vegetation in toe drain. |
| Rating: | Minimally Acceptable | Photo: | _5_ 20220607T134623.jpg _6_ 20220607T134634.jpg _7_ 20220607T134643.jpg |
| Coordinates: | -73.19108 , 42.88744 | | |

Rating Section: 10. Pump Stations

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| Inspect ID: | 2016-0014 | | |
| Status: | Unresolved | Item: | 1. Pump Stations Operating, Maintenance, Training, & Inspection Records |
| Location: | | Remarks: | The original O&M manual is used for training. The station is tested once a month. The staff noted that to their knowledge, the station has not been operated since 1983. A log is kept of the monthly testing. No training records are present. |
| Rating: | Minimally Acceptable | Photo: | 3 20220606T183935.jpg |
| Coordinates: | -73.19245 , 42.88809 | | |

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| Inspect ID: | 2016-0017 | | |
| Status: | Unresolved | Item: | 2. Pump Station Operations and Maintenance Equipment Manuals |
| Location: | | Remarks: | A copy of the 1971 O&M manual was found at the pump station. |
| Rating: | Minimally Acceptable | Photo: | 2 20220606T183844.jpg |
| Coordinates: | -73.19245 , 42.88809 | | |

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| Inspect ID: | 2016-0015 | | |
| Status: | Typical Conditions | Item: | 3. Safety Compliance |
| Location: | | Remarks: | All the staff responsible for the station are certified treatment plant operators. Town safety team does inspections and the results are recorded. There have been no significant findings. |
| Rating: | Acceptable | Photo: | 4504000006_CENAN_2022_B0015_2_20220622T151546.jpg |
| Coordinates: | -73.19245 , 42.88809 | | |

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| Inspect ID: | 2016-0016 | | |
| Status: | Typical Conditions | Item: | 4. Communications (A or M only) |
| Location: | | Remarks: | Cellular phone and two-way radios are used. There is also an auto dialer that notifies the town on pump failure. 2022: Auto dialer has been disconnected. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B0016_2_20220621T203029.jpg |
| Coordinates: | -73.19245 , 42.88809 | | |

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|---------------------|----------------------|-----------------|---|
| Inspect ID: | 2016-0013 | | |
| Status: | Unresolved | Item: | 5. Plant Building |
| Location: | | Remarks: | Spalling of the brick around the pump station building. |
| Rating: | Minimally Acceptable | Photo: | 4_20220606T184258.jpg |
| Coordinates: | -73.19246 , 42.88806 | | |

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| Inspect ID: | 2016-0018 | | |
| Status: | Unresolved | Item: | 5. Plant Building |
| Location: | | Remarks: | There is an electric heater in the station that is operational and the roof was replaced 2 year ago. |
| Rating: | Acceptable | Photo: | 2_20220606T190448.jpg |
| Coordinates: | -73.19245 , 42.88809 | | |

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|---------------------|----------------------|-----------------|---|
| Inspect ID: | 2016-0040 | | |
| Status: | Unresolved | Item: | 5. Plant Building |
| Location: | | Remarks: | Spalling and cracking on front wingwall at pumping station doorway. |
| Rating: | Minimally Acceptable | Photo: | 3 20220606T185136.jpg |
| Coordinates: | -73.19249 , 42.88811 | | |

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| Inspect ID: | 2016-0041 | | |
| Status: | Typical Conditions | Item: | 5. Plant Building |
| Location: | | Remarks: | Pumping station locked, secure, and operational. |
| Rating: | Acceptable | Photo: | 2 20220606T190326.jpg |
| Coordinates: | -73.19248 , 42.88828 | | |

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| Inspect ID: | 2016-0019 | | |
| Status: | Unresolved | Item: | 6. Fencing and Gates |
| Location: | | Remarks: | The pump station is not fenced or otherwise protected from intrusion. Staff noted that there had been incidents of vandalism in the past. There is no fence on the As-Built drawings. |
| Rating: | Acceptable | Photo: | 4504000006_CENAN_2022_B 0019 2 20220622T152031.jpg |
| Coordinates: | -73.19245 , 42.88809 | | |

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| Inspect ID: | 2016-0020 | | |
| Status: | Typical Conditions | Item: | 7. Pumps |
| Location: | | Remarks: | The pump station includes two(2) 30Hp vertical turbine pumps (5000 gpm at 13.5'TDH) and a 50 gpm sump pump for draining the wet well. All three were run briefly (no water in wet well) and ran without excessive noise and vibration. |
| Rating: | Minimally Acceptable | Photo: | 2 20220606T184444.jpg |
| Coordinates: | -73.19245 , 42.88809 | | |

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| Inspect ID: | 2016-0021 | | |
| Status: | Typical Conditions | Item: | 9. Sumps/ Wet well |
| Location: | | Remarks: | The wet well is not cleaned regularly only when there is a problem. From the exterior it appears to be in good condition. The local sponsor verified that they use a confined space procedure when entering the wet well. |
| Rating: | Minimally Acceptable | Photo: | |
| Coordinates: | -73.19245 , 42.88809 | | |

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| Inspect ID: | 2016-0022 | | |
| Status: | Typical Conditions | Item: | 11. Non-Mechanical Trash Racks |
| Location: | | Remarks: | There are only manual trash racks which appear to be in good condition with one or two of the bars slightly bent. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0022_2_20220622T152608.jpg |
| Coordinates: | -73.19245 , 42.88809 | | |

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| Inspect ID: | 2016-0026 | | |
| Status: | Unresolved | Item: | 13. Power Source |
| Location: | | Remarks: | There is no backup power (i.e., generator) at the pumping station; nor are there provisions for connecting a mobile generator. The pumping station does not presently have a main service disconnect (main circuit breaker or main fused disconnect switch). |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0026_2_20220622T153341.jpg |
| Coordinates: | -73.19245 , 42.88809 | | |

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| Inspect ID: | 2016-0027 | | |
| Status: | Unresolved | Item: | 14. Electrical Systems |
| Location: | | Remarks: | There are no lights in the wetwell or on the building exterior. The receptacles are not GFI protected. |
| Rating: | Minimally Acceptable | Photo: | 4 20220606T185313.jpg 4504000006_CENAN_2022_B_0027_5_20220622T153828.jpg 4504000006_CENAN_2022_B_0027_6_20220622T153834.jpg 4504000006_CENAN_2022_B_0027_7_20220622T153908.jpg |
| Coordinates: | -73.19245 , 42.88809 | | |

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| Inspect ID: | 2016-0028 | | |
| Status: | Unresolved | Item: | 15. Megger Testing on Pump Motors and Critical Power Cables |
| Location: | | Remarks: | Megger testing of the pump motors was conducted by Prue Electric on 12 Nov 2014. All tested normal with no leakage. They found the motors and leads in good condition. 2016: Need to check if testing should be done every 2 or 5 years. |
| Rating: | Minimally Acceptable | Photo: | |
| Coordinates: | -73.19245 , 42.88809 | | |

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| Inspect ID: | 2016-0029 | | |
| Status: | Unresolved | Item: | 16. Enclosures, Panels, Conduit and Ducts |
| Location: | | Remarks: | There is very minor visible corrosion on the electrical enclosures. |
| Rating: | Minimally Acceptable | Photo: | 3 20220606T184738.jpg |
| Coordinates: | -73.19245 , 42.88809 | | |

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| Inspect ID: | 2016-0023 | | |
| Status: | Typical Conditions | Item: | 17. Intake and Discharge Pipelines |
| Location: | | Remarks: | There is no intake piping. The discharge piping is in good condition and was painted 10 years ago. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0023_5_20220622T154705.jpg 4504000006_CENAN_2022_B_0023_6_20220622T154725.jpg |
| Coordinates: | -73.19245 , 42.88809 | | |

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| Inspect ID: | 2016-0024 | | |
| Status: | Typical Conditions | Item: | 18. Sluice/ Slide Gates |
| Location: | | Remarks: | They are manual gates and the portable handle is kept in the pump station. They are greased regularly. The outlet gate could not be closed completely. There may be debris in the seat. The manual gate operators take a long time and many turns to close. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0024_2_20220622T155120.jpg 4504000006_CENAN_2022_B_0024_3_20220622T155125.jpg 4504000006_CENAN_2022_B_0024_4_20220622T155131.jpg 4504000006_CENAN_2022_B_0024_5_20220622T155136.jpg |
| Coordinates: | -73.19245 , 42.88809 | | |

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|---------------------|----------------------|-----------------|---|
| Inspect ID: | 2016-0025 | | |
| Status: | Typical Conditions | Item: | 20. Cranes |
| Location: | | Remarks: | The crane is no longer used and is locked out of service. The local sponsor uses portable crane to remove motor if necessary. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0025_1_20220622T155426.jpg |
| Coordinates: | -73.19245 , 42.88809 | | |

Rating Section: 11. Flood Damage Reduction Channels

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| Inspect ID: | 2016-0132 | | |
| Status: | Unresolved | Item: | 1. Vegetation and Obstructions |
| Location: | | Remarks: | Debris in retaining wall weephole. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0132_1_20220622T160419.jpg |
| Coordinates: | -73.18171 , 42.88354 | | |

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| Inspect ID: | 2016-0144 | | |
| Status: | Unresolved | Item: | 1. Vegetation and Obstructions |
| Location: | | Remarks: | Vegetation located along the retaining wall on unprotected side of levee. |
| Rating: | Minimally Acceptable | Photo: | 3 20220607T163114.jpg |
| Coordinates: | -73.18074 , 42.88261 , -73.18035 , 42.88222 | | |

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| Inspect ID: | 2016-0122 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces |
| Location: | | Remarks: | Horizontal cracking on the unprotected face of the local sponsor constructed retaining wall with efflorescence running entire length of retaining wall. |
| Rating: | Unacceptable | Photo: | 4504000006_CENAN_2022_B_0122_3_20220622T174429.jpg 4504000006_CENAN_2022_B_0122_4_20220622T174439.jpg |
| Coordinates: | -73.18042 , 42.88222 , -73.18205 , 42.88388 | | |

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| Inspect ID: | 2016-0127 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces |
| Location: | | Remarks: | Spalling of unprotected face of retaining wall at monolith joint. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0127_1_20220622T182512.jpg |
| Coordinates: | -73.18183 , 42.88368 | | |

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| Inspect ID: | 2016-0128 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces |
| Location: | | Remarks: | Large vertical crack in retaining wall on the unprotected side. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0128_2_20220622T182703.jpg |
| Coordinates: | -73.18183 , 42.88367 | | |

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| Inspect ID: | 2016-0130 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces |
| Location: | | Remarks: | Spalling and cracking of unprotected face of retaining wall near culvert and monolith joint. |
| Rating: | Minimally Acceptable | Photo: | 2_20220607T170614.jpg |
| Coordinates: | -73.18172 , 42.88355 | | |

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| Inspect ID: | 2016-0133 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces |
| Location: | | Remarks: | Large horizontal crack leading to vertical crack on unprotected side. |
| Rating: | Unacceptable | Photo: | 4504000006_CENAN_2022_B_0133_2_20220622T182955.jpg 4504000006_CENAN_2022_B_0133_3_20220622T183014.jpg |
| Coordinates: | -73.18169 , 42.88356 | | |

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| Inspect ID: | 2016-0134 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces |
| Location: | | Remarks: | Spalling of retaining wall on protected side. |
| Rating: | Unacceptable | Photo: | 4504000006_CENAN_2022_B_0134_2_20220622T183750.jpg |
| Coordinates: | -73.18167 , 42.88351 | | |

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| Inspect ID: | 2016-0135 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces |
| Location: | | Remarks: | Large vertical crack in retaining wall on the unprotected side. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0135_2_20220622T180106.jpg |
| Coordinates: | -73.18167 , 42.88351 | | |

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| Inspect ID: | 2016-0136 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces |
| Location: | | Remarks: | Cracking on top of retaining wall. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B_0136_2_20220622T181935.jpg |
| Coordinates: | -73.18176 , 42.88353 | | |

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| Inspect ID: | 2016-0139 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces |
| Location: | | Remarks: | Large vertical crack in retaining wall on the unprotected side. |
| Rating: | Unacceptable | Photo: | 4504000006_CENAN_2022_B_0139_2_20220622T183541.jpg |
| Coordinates: | -73.18155 , 42.88341 | | |

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| Inspect ID: | 2016-0140 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces |
| Location: | | Remarks: | Older retaining wall with significant cracking and spalling. |
| Rating: | Unacceptable | Photo: | 4504000006_CENAN_2022_B_0140_4_20220622T180957.jpg |
| Coordinates: | -73.18159 , 42.88330 , -73.18131 , 42.88304 | | |

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| Inspect ID: | 2016-0141 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces |
| Location: | | Remarks: | Significant spalling and cracking on top of older raised retaining wall. |
| Rating: | Unacceptable | Photo: | _18_20220607T162501.jpg 4504000006_CENAN_2022_B_0141_2_20220622T181224.jpg |
| Coordinates: | -73.18128 , 42.88301 , -73.18106 , 42.88276 | | |

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| Inspect ID: | 2016-0142 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces |
| Location: | | Remarks: | Spalling of unprotected face of retaining wall at the monolith joint causing holes. |
| Rating: | Unacceptable | Photo: | _2_20220607T165235.jpg 4504000006_CENAN_2022_B_0142_3_20220622T180443.jpg |
| Coordinates: | -73.18098 , 42.88280 | | |

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| Inspect ID: | 2016-0147 | | |
| Status: | Unresolved | Item: | 5. Concrete Surfaces |
| Location: | | Remarks: | Spalling of retaining wall at monolith joint. |
| Rating: | Unacceptable | Photo: | 3_20220607T163335.jpg |
| Coordinates: | -73.18046 , 42.88231 | | |

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| Inspect ID: | 2016-0126 | | |
| Status: | Unresolved | Item: | 6. Tilting, Sliding or Settlement of Concrete Structures |
| Location: | | Remarks: | Monolith of local retaining wall is tilting toward the unprotected side by 3 inches, but less than 2" from adjoining monolith. |
| Rating: | Minimally Acceptable | Photo: | 3_20220607T161020.jpg 4504000006_CENAN_2022_B 0126_2_20220622T172825.jpg |
| Coordinates: | -73.18185 , 42.88368 | | |

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| Inspect ID: | 2016-0131 | | |
| Status: | Unresolved | Item: | 6. Tilting, Sliding or Settlement of Concrete Structures |
| Location: | | Remarks: | A pair of retaining wall monoliths are tilting approximately 4 inches toward unprotected side, but less than 2" from adjoining monolith. |
| Rating: | Unacceptable | Photo: | 2_20220607T161740.jpg 4504000006_CENAN_2022_B 0131_2_20220622T173214.jpg |
| Coordinates: | -73.18171 , 42.88355 | | |

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| Inspect ID: | 2016-0125 | | |
| Status: | Monitor | Item: | 7. Foundation of Concrete Structures |
| Location: | | Remarks: | Several newly drilled weepholes at base of retaining wall. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B 0125_1_20220622T173632.jpg |
| Coordinates: | -73.18186 , 42.88368 | | |

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| Inspect ID: | 2016-0113 | | |
| Status: | Unresolved | Item: | 10. Riprap Revetments & Banks |
| Location: | | Remarks: | There appears to be a depression in riprap. Cannot confirm in 2022 inspection due to vegetation. |
| Rating: | Minimally Acceptable | Photo: | 4504000006_CENAN_2022_B0113_2_20220621T201051.jpg |
| Coordinates: | -73.18310 , 42.88454 | | |